

Air Conditioning & Refrigeration News

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IN THIS ISSUE

Magic Put to Work

Magicians have come back into public favor during the past few years as preferred entertainers (should we say also as politicians?). A smart distributor in Oklahoma, looking around for something to draw the bored glances of a state fair crowd to his inanimate appliances, sensed the return of the magicians' appeal and had a conjurer build a show around the appliances. The crowds stopped and looked. Story on page 2.

Showing You How to Show 'Em

Continuing with the theme that refrigeration parts and supplies can be attractively displayed and merchandised, we present a picture story of some of the excellent display work done by the Central Service Supply Co. in Scranton, Pa. and Syracuse, N. Y. Page 10.

Cool While They Wash

Anybody who has ever seen a commercial laundry in action must have had impressed upon him that such an establishment was a "natural" for air conditioning. The owner of a laundry who installed air conditioning tells of its benefits to his business on page 7.

They Do the Unusual

A commercial refrigeration dealer that has done some unusual jobs is the Conrad Refrigeration Co. of Minneapolis. Story of some of their work is told on page 5.

Useful Service Information

How any service man can build a simple and inexpensive but efficient charging board is told in the "Service Forum" on page 11. Information on sizing suction lines is featured in this week's instalment of the Black & Seitz series on low temperature cabinet service. Page 14.

Maybe You're in the Picture

Been to a convention lately? If so, maybe you'll find your picture among those of the Illinois R.S.E.S. meeting (page 11) or in those of the National Frozen Food Locker Association (pages 12 and 13).

McCall's Contest Open To Kitchen Planners

NEW YORK CITY—To promote nationwide interest in modern kitchens, McCall's magazine has announced a "Dream Kitchen Contest," open to professional kitchen planners as well as consumers, and offering 113 prizes totaling \$1,250 for the most original, practical, and attractive designs.

The contest opened Oct. 1 and will close Dec. 31. Entries are divided into three classes: student, home-maker, and professional kitchen planner, and an award of \$200 will be made to the best plans submitted in each of these groups. In addition, 10 prizes of \$25 will be awarded for the best entries representing specific types of kitchens—all-electric, all-gas, laundry combination, farm kitchen, hobby unit, etc.

Fifty awards also will be made for the best kitchen from each state, the District of Columbia, and territorial possessions.

Prizes will be awarded on efficiency of arrangement of work areas, originality of decorating details, effectiveness of solutions offered to type kitchen selected, and suitability of materials selected to kitchen use, as well as practicality of the scheme.

Entries must be made on the official entry blank, and only one entry can be submitted by a contestant. The kitchen depicted should not be more than 14 by 20 feet. Plans may represent only a kitchen, or may include a kitchen-laundry combination, a kitchen-eating unit, a farm kitchen, a kitchen-hobby unit, or one of several other designs.

Package Equipment Paces September Commercial Gain

DETROIT—With ice cream cabinets, bottle beverage coolers, and commercial condensing units going well over comparable 1939 totals, world shipments of commercial refrigeration equipment reached a dollar volume of \$1,390,312 during September, according to reports of manufacturers to the Commercial Refrigeration Section of National Electrical Manufacturers Association.

World shipments of commercial equipment reported by Nema firms during September, 1939, totaled \$1,251,544.

For the first nine months of this

(Concluded on Page 15, Column 3)

4,000-Unit Drop In September Exports

WASHINGTON, D. C.—Exports of household electric refrigerators during September dropped about 800 units below those for August, and more than 4,000 below the figure for the corresponding month of 1939, according to statistics compiled by the Bureau of Foreign and Domestic Commerce.

Shipments of commercial refrigerators and refrigerator parts also were down from September, 1939, totals although the decrease was slight. Exports of air conditioners and parts, however, as previously reported, rose to a new high for the year of \$116,236.

Household refrigerator exports

(Concluded on Page 15, Column 4)

9-Mo. Range Sales 33% Above 1939

NEW YORK CITY—Shipments of electric ranges to distributors and dealers in the United States, Alaska, and Hawaii during September increased approximately 23% over those of the corresponding month last year, according to reports by National Electrical Manufacturers Association.

September shipments this year came to 32,167 units, as compared with 26,235 in September, 1939.

For the first nine months of this year, electric range shipments to firms in the continental U. S. and possessions were about 33% up on those for the same months of 1939. Total for 1940 was 319,651 units, as compared with 240,798 last year.

Minneapolis Co-Eds Put On 'Alice' Range Show

MINNEAPOLIS—Packed houses in five Minneapolis theaters got a dramatized story of the advantages of modern electric cookery during the three-day "Alice in Electric Wonderland" cooking school show staged Oct. 16, 17, and 18 by the North Central Associated Electrical Industries. A. H. Kessler, promoter

(Concluded on Page 4, Column 3)

'Hot' or Not, Dallas Stores Really Want Cooling Units

DALLAS, Tex.—Apparently even "hot" air conditioning units find a ready market in this territory.

Dallas police were recently asked to recover a unit conditioner stolen from a local grocery. They located it in a parking garage, to which the thief had sold it. The unit was valued at about \$100, police reported.

ASRE Completes Program For Its Meeting Dec. 3

Conferences on Locker Storage & Air Cooling To Be Featured

NEW YORK CITY—Discussions of practical new engineering developments in the fields of refrigeration and air conditioning have been scheduled for the thirty-sixth annual meeting of American Society of Refrigerating Engineers, to be held Dec. 3 to 5 at the Hotel Commodore.

Two informal conferences, one on air conditioning operation and the other on locker plants, have been booked for the first afternoon of the meeting. At the session on air conditioning, engineers who furnish cooling for large groups will explain some of the most common criticisms and operating problems.

Conference on locker plants will consider the economic status of this

(Concluded on Page 16, Column 1)

C. L. Percival Will Move To Boone, Ia.

BOONE, Iowa—C. L. Percival Co., manufacturer of commercial refrigeration equipment with present headquarters in Des Moines, has begun construction of a new factory building on a three-acre site recently purchased here.

Office and manufacturing headquarters of the company will be moved to this city about Feb. 1, 1941, after

(Concluded on Page 15, Column 2)

Sprague Elaborates On Locker Plants In Defense Plan

OMAHA, Neb.—Conversion of America's nation-wide network of independently owned frozen food locker storage plants into the country's "second line" of food defense fortifications is advocated by Roger Sprague of Baker Ice Machine Co.

Mr. Sprague points out that wartime food procurement, which invariably places the needs of the armed forces over those of the civilian population, usually results in various food restrictions, unjustified rises in consumer prices, and much produce profiteering—all of which lowers the morale, health, and cooperative spirit of the populace.

To prevent the rise of these conditions, he suggests the incorporation of a regional body composed of economists, market specialists, food chemists, agriculturalists, meat specialists, and engineers, which would

(Concluded on Page 15, Column 1)

Dealer Puts Traded-In Iceboxes on the Road!

DEWITT, Ark.—The problem of what to do with old iceboxes taken in on new electric refrigerators has been solved in a salesman-like way by Exchange Furniture Co., Westinghouse dealership here.

The company has "spotted" some of its old iceboxes along highways leading to Dewitt, with a sign on them reading: "Then They Bought A Westinghouse!" This novel advertising stunt, for which only the scrap iceboxes were used, results in a lot of inquiries and sales, reports L. H. Scarborough and R. Kilberry, owners of the dealership.

Average Price Is \$153 Per Sale In Philadelphia

Last Year It Was \$171; 57,145 Units Sold In 9 Months, 15% Gain

PHILADELPHIA—Sales of household electric refrigerators in the Philadelphia area during the first nine months of this year totaled 57,145 units, an increase of 15% over the 49,476 units sold during the same period of last year, according to reports of dealers to the Electrical Association of Philadelphia.

Sales this year averaged \$153 per unit for a total dollar volume of \$8,746,934, compared with \$8,486,280, or an average of \$171 per unit, in 1939.

Peak sales month in the Philadelphia territory this year was reached in May, when sales totaled 10,232 units, a gain of 13% over 1939. Largest increase over 1939 sales was recorded in April, when sales this

(Concluded on Page 4, Column 1)

Fogel Procures New Plant Property

PHILADELPHIA—Fogel Refrigerator Co., manufacturer of commercial refrigeration equipment, has purchased the property and buildings at Eadom and Kennedy Sts. here, and will move its manufacturing operations there as soon as building and alterations have been completed. The site now includes three one-story and two-story structures containing about 40,000 sq. ft. of space.

In Selling To Salesmen, the Play's the Thing



The Electric Institute of Washington used this range-refrigerator "wedding" playlet to announce a combined campaign on these appliances.



"Alice in Electric Wonderland," Institute version, ran in a G-Man and a threat of "beheading" for salesmen who didn't know their product. All skits are written and acted by staff members of the Institute.

Washington League Turns To Dramatics To Spark Its 1940 Promotions

WASHINGTON, D. C.—Selling promotional campaigns to appliance salesmen by means of dramatized skits which get across the underlying ideas back of the drives has put a new punch into meetings staged by the Electric Institute of Washington this year.

Back of the institute's novel methods of campaign presentation is the theory that, if nobody is listening, it doesn't matter what you say—and that the only way to get any point across is to make certain your audience is interested in what's going on. This is as true of salesmen themselves as it is of the buying public generally.

The institute's first venture into drama as a means of stimulating sales interest in a projected campaign came in connection with a roaster promotion for department store salespeople. To emphasize the idea that a roaster has a special appeal to persons who work and "keep house," too, the institute staff hit upon the idea of a skit which would interpret what a roaster meant to the working girl.

Scene was the apartment of the Joneses, on the night when one of Mr. Jones' college friends and his wife come to dinner. The friend, a hearty eater, gets hungrier and more worried as he and his wife are proffered cocktails and light conversation, with no evidence that any sort of dinner is in preparation. The climax, of course, shows the roaster being brought in, with a delicious chicken dinner inside it.

Success of this presentation inspired a drama for the next range promotion meeting, heralded as the

(Concluded on Page 16, Column 3)

Appliances Serve as Magician's 'Assistants' In Distributor's Show For Fair Crowds



Dollar bills out of the Frigidaire "Meter-Miser" and loaves of bread from a sandwich were some of the feats of magic which attracted Oklahoma Fair crowds. W. C. Dance, Inc. sponsored the exhibit.

OKLAHOMA CITY, Okla.—Magic made prospects for Frigidaire dealers in this vicinity during the week of the Oklahoma State Fair. Employing a professional magician to perform tricks from his regular repertoire intermingled with sleight of hand feats based on Frigidaire features, W. C. Dance, Inc., Frigidaire distributor for this area, estimates that some 150,000 persons witnessed the magic performances during the fair.

One of the tricks consisted of

placing a paper wad in a drinking glass, then putting them into the refrigerator cabinet, and closing the door. The magician stated, as he did so, that the magic of the refrigerator would cause the paper to be transformed into an egg. When the refrigerator door was opened and the glass removed, an egg had taken the place of the wad of paper. When the egg was broken into the glass to prove that it was genuine, a note was found in the egg which said: "For best results, keep all my

eggs in a genuine Cold Wall Frigidaire." The note was signed by "Biddy Hen."

In one of the stunts developed to concentrate attention on the cold making mechanism, a savings story was related about Frigidaire's meter-miser. A dollar bill was placed over a cut-away meter-miser which produced a handful of dollar bills.

Combining entertainment and demonstration of features, the magician also used a Frigidaire electric range for several tricks. For one of his stunts, the magician put a half-eaten sandwich into a sack and then placed it in the oven. After talking for a few moments about the fast heat available in the range oven, the magician opened the oven door and a full loaf of bread had taken the place of the sandwich.

Women Get 'Air Minded' And 'Range Minded' In James & Co. Promotion

ST. LOUIS—Housewives in the St. Louis territory are becoming increasingly "air-minded" as a by-product of General Electric's fall range drive centered around the new "Statesman" model, sponsored in this area by James & Co., G-E distributor.

The seven winners of prizes at James & Co.'s weekly electric cookery classes receive free rides on a Chicago & Southern airliner; two Chicago & Southern air hostesses demonstrate the serving of modern meals; a regular airliner electric range is used in the demonstrations; and menus featured are similar to those on airliners.

Sam's Selling Slants



SOUSA

If you want anything—even an order—ask for it.

I had that proved to me as a kid by no less a person than John Philip Sousa.

I was a glorified freshman at Ohio Wesleyan university. And if you think I wasn't "glorified" you just don't own a dictionary.

Visualize me, if you will, in peg-top corduroy pants with leather cuffs 3 inches deep—high heeled "bull-dog" button pumps—a flannel shirt with a Windsor tie—a hat with a shoe string interlaced through its 1-inch rim—a fraternity pledge button that seemed to me as big and as important as a policeman's badge—

And brother, you have visualized something.

Then came Sousa;

He played in the "Opry House."

I can see him yet as he stood with his erect military figure before his band—playing, it seemed—not so much on instruments of wood and brass as on the heart strings of those under his spell.

He played "El Capitan."

The world became a thing of dreams for me. I forgot the crowds around me—Sousa himself disappeared—physically I myself ceased to exist. I lived only in a land of awe-ful emotion, despair, love, hope, life's futility—all on parade.

Then Triumph—

And as Sousa's baton swept downward with the last beat of the music I found myself standing—standing alone before all the world—stripped of all except the knowledge that the music could not—must not cease. And in the silence that precedes a storm of applause, I yelled:

"Oh, please, play it again."

The audience cheered and howled and laughed and stamped its feet not only at my enthusiasm, but at the confusion which overcame me when I realized what I had done.

But—Sousa

Turned around and bowed to me with that wonderful sweet smile that has lived in my heart for years, and—

Played it again.

Salesman's Commission Is Made Dependent on Sale of Own Trade-In

DEFIANCE, Ohio—Making the resale of trade-ins mean dollars and cents to his salesmen, E. T. Breckbill, head of Central Electric Co. here, never has to worry about the slow movement of used refrigerators.

On the sale of new refrigerators, salesmen receive a commission of 40% of the gross profit. If a trade-in is involved in the sale, the salesman receives 40% of the gross profit after the trade-in allowance has been deducted from the original selling price.

If the salesman sells the trade-in, he collects 40% of the gross profit on this sale. If the trade-in is sold by another salesman, the salesman who has taken it in trade receives 25% of the gross profit, while the man making the sales receives 15%.

The system has resulted in a fast movement of used refrigerators, keeps allowances down, and prompts salesmen to be more careful in appraisal of used refrigerators taken in trade, according to Mr. Breckbill. Salesmen make a real effort to sell used refrigerators at a profit, because their commissions increase with the profit on the sale.

Lumber Dealer To Sell Kitchen Appliances

BRIDGEPORT, Conn.—Inaugurating what might develop into a new trend, at least in this section, the City Lumber Co., one of the largest organizations of its kind in this city, has taken on the Universal line of electric ranges for merchandising through its kitchen appliance department. David Nevins is manager of the department.

Carolina Dealer Has 'Biggest' Day

DARLINGTON, S. C.—Bill Johnson, owner, manager, salesman, and "the whole works" of Johnson Bros., General Electric dealership here, recently received the biggest single order of his career when he installed six major appliances—two refrigerators, two ranges, and two water heaters—in a duplex apartment.

Frigid

Apex BONDERIZED TO PREVENT RUST

SALES BULLETIN
APEX ROTAREX CORPORATION

WITH THE AID of Mr. Henry Dreyfuss, noted industrial designer who created the "curvy" trains, as well as famous World's Fair Exhibits, Apex develops a new style theme for domestic laundry equipment. With a background of outstanding achievement in industrial design, Mr. Dreyfuss has given the new "Speedline" washer modern appearance, in graceful and beautiful lines, with definite sales appeal. Supplementing the outstanding beauty and dependable mechanical construction is a modern finish that assures trouble-free service. Continuous fine appearance ranks high with the average buyer and to make sure of this quality the Apex Washer is Bonderized before the synthetic enamel is applied. This is an invisible quality that adds many extra years of finish life. It provides effective adhesion and prevents chipping or peeling. It is a definite sales point that every salesman can use to advantage.

OF ALL the features that make a washing machine a "best seller", styling, mechanical perfection and finish take top rank. Apex styling is created by a world renowned designer—washing efficiency is assured by the proven Spiral Dasher—finish is safeguarded by Bonderizing.

Finish permanence is so important that Bonderizing is a "spotlight" feature in Apex advertising. A special bulletin was recently distributed by Apex, devoted exclusively to this outstanding quality. It is one of the factors that accounts for the popularity of Apex Washers. It adds a value that makes any washer sell easier. American women know its rust-preventing and paint holding character. The Bonderized product has a definite sales advantage.

PARKER RUST PROOF COMPANY
2197 E. Milwaukee Ave., Detroit, Michigan

Send for This Book:



It gives the salesman complete information about Bonderizing—what it is—how it is applied—how it protects steel—and what it means to the customer.

PARKER
Processes CONQUER RUST
BONDERIZING • PARKERIZING

Leadership in Action!

1940—A YEAR OF BROKEN RECORDS FOR FRIGIDAIRE SELLING MEN!

Greater leadership in sales! The sale of more than 600,000 Frigidaire refrigerators in 1940 sets an all-time high in refrigerator sales records.

Only great public confidence in the merit of Frigidaire could make this all-time record possible. Such wide-spread customer acceptance makes selling easier.

A sound sales-winning program. In 1940 Frigidaire dealers had the dream of every selling man—outstanding products; the leading name in the industry; sensational low prices; constant, forceful advertising; and sound, effective selling plans.

Only men of broad vision and long experience could have produced such a program. These men support the Frigidaire dealer with but one idea—to help him sell more Frigidaires.

Industry's largest factory. In 1940 Frigidaire dealers broke selling records month after month. Yet despite record-breaking volume, the most popular models were always available when needed.

Only a plant as large and as flexible as Frigidaire's could meet dealers' demands for more and more products. For example, refrigerator production was stepped up and maintained at the impressive peak rate of more than 3 new Frigidaire refrigerators a minute.

The right models at the right time! Appealing new models were introduced at strategic times during the selling season to increase even further the dealers' competitive advantage.

Only manufacturing capacity and flexibility that gear in with merchandising problems quickly can keep a selling organization in the strongest competitive position.



Leadership is not taken lightly at Frigidaire. For we know there is no easy way to continued success.

We look upon leadership as an *active* selling force ...a spring-board to new and greater accomplishments. This concept of leadership is reflected in the extra selling advantages built into every Frigidaire refrigerator, electric range, and electric water heater. It is reflected in the extra value they offer to the customer. It is reflected in every activity of an aggressive, experienced factory and distributor personnel that works in closest cooperation with a wide-awake, alert dealer organization.

Thus is created a leadership in products, production and plans that automatically makes for leadership in sales. As proof, every Frigidaire selling record was broken in 1940. Again, Frigidaire Dealers capitalized on the selling power of Leadership in Action!

NOW— What about 1941?

It's going to be another big year for Frigidaire! Inside and out, the great new lines of Frigidaire appliances will offer sensational new advantages, planned to stimulate buying interest to new heights. Advertising and selling plans will be hard-hitting, aggressive and sales-producing! Again in 1941 Frigidaire Dealers will "cash in" on the increased selling power of an even greater Leadership in Action!

Frigidaire — AMERICA'S FAVORITE

Frigidaire Division, General Motors Sales Corporation, Dayton, Ohio • Frigidaire Electric Appliances • Refrigerators, Ranges and Water Heaters

Philadelphia Sales Climb 15% in First 9 Months but Average Price Drops to \$153 Per Unit

Month	1940 Units Sold	1939 Units Sold	1938 Units Sold	1940% Inc. Or Decrease Over 1939	1940 Retail Value	1939 Retail Value	1940% Inc. Or Decrease Over 1939	1940 Average Price	1939 Average Price
January	4,257	3,118	3,123	+36%	\$ 685,501	\$ 549,996	+24%	\$161	\$176
February	4,869	4,473	3,797	+9%	750,862	802,458	-7%	154	179
March	6,199	5,804	4,826	+7%	930,708	1,029,138	-10%	150	177
April	7,879	4,826	5,861	+63%	1,220,874	837,058	+45%	154	173
May	10,232	9,007	4,812	+13%	1,564,776	1,522,484	+3%	152	169
June	9,258	9,361	3,623	+2%	1,389,383	1,591,347	-13%	150	170
July	5,810	5,183	3,237	+12%	905,038	874,054	+3%	155	168
August	4,875	4,255	3,936	+14%	744,877	706,736	+5%	152	166
September	3,766	3,449	2,617	+7%	554,905	573,009	-3%	147	166
Totals	57,145	49,476	35,832	+15%	\$8,746,934	\$8,486,280	+3%	\$153	\$171

Sales By Philadelphia Electric Co.

Month	1940 Units Sold	1939 Units Sold	1938 Units Sold	1940% Inc. Or Decrease Over 1939	1940 Retail Value	1939 Retail Value	1940% Inc. Or Decrease Over 1939	1940 Average Price	1939 Average Price
January	104	125	83	-17%	\$ 18,157	\$ 23,546	-23%	\$174	\$188
February	537	262	222	+105%	85,109	50,726	+67%	158	193
March	608	268	316	+126%	96,575	49,348	+95%	158	184
April	1,072	541	458	+98%	183,666	103,460	+77%	171	191
May	1,686	1,487	514	+13%	293,297	317,953	-8%	173	213
June	1,717	1,498	395	+15%	294,826	340,890	-14%	171	227
July	1,187	808	357	+46%	203,784	186,348	+9%	171	230
August	1,055	677	385	+55%	185,258	151,734	+22%	175	224
September	592	545	224	+8%	101,570	124,280	-22%	171	228
Totals	8,558	6,211	2,954	+37%	\$1,462,242	\$1,348,285	+8%	\$170	\$216

Note: Utility sales approximate 15% of total sales. Report covers sales in Philadelphia, Bucks, Montgomery, Delaware, and Chester counties. Report includes sales of the following makes: Cold spot, Crosley, Frigidaire, Gibson, General Electric, Hotpoint, Kelvinator, Leonard, Norge, Philco, Stewart-Warner, and Westinghouse.

Sales by Utility Gain 37% in Same Period

(Concluded from Page 1, Column 5) year reached 7,879 units, as compared to 4,826 in the month last year. Another high month was January, when sales this year were 4,257 units, a gain of 36% over 1939 sales of 3,118 units. Sales by Philadelphia Electric Co. totaled 8,558 units during the first nine months of the year, an increase of 37% over the 6,211 units sold by

the company in the same period of 1939. Average price of sales this year also dropped as compared with 1939, but was still almost \$20 higher than that for territorial dealers as a whole, standing at \$170. For the same period of 1939, the average price was \$216. Highest utility sales month was May, when 1,717 units were reported, with June second, with 1,686 units; and July third, with 1,187 units. Sales by the utility approximate 15% of total sales. Dollar volume of utility sales this year through September was \$1,462,242, as compared with \$1,348,285 in 1939.

'Alice' Show Scheduled By 30 Organizations

(Concluded from Page 1, Column 2) tion manager of the association, was in charge of the shows. Cast for the show was obtained and trained by the dramatics department of the University of Minnesota. Elsie Kelly, who took the part of "Alice" in the Modern Kitchen Bureau presentation, played Peter Pan in the university's annual production. The "heavy duty" part, that of demonstrating the electric range and preparing the "Wonder Meal," was taken by Miss Dorothy Brown of the Northern States Power Co. More than 30 organizations have scheduled the "Alice" show in their fall electric range promotions: Alabama Power Co.; Hartford Electric League; Pittsfield Electric Co.; Indiana General Service Co.; Electrical League of Indianapolis; Meier & Frank Co., Portland, Ore.; Indiana-Michigan Electric Co.; Buffalo Niagara Electric Corp.; Connecticut Light & Power Co.; Public Service Co. of New Hampshire; Utah Power & Light Co.; Public Service Co. of Indiana; Pennsylvania Power & Light Co.; California Oregon Power & Light Co.; Idaho Power Co. Light & Water Dept. of Lakeland, Fla.; Ohio Edison Co.; North Central Associated Electrical Industries; Pennsylvania Power Co.; Puget Sound Power & Light Co.; Union Light & Power Co., Franklin, Mass.; Duke Power Co.; Electric Institute of Washington; Scranton Electric Co.; Arizona Edison Co.; Central Illinois Light Co., DeKalb, Ill.; Electrical Department, City of Opelika, Ala.; Commonwealth Edison Co.; Municipal Light & Power Office, Anderson, Ind.

Zimmerman Stresses Need For Collective Work in Conditioning

BUFFALO—Importance of collective action in enabling the air conditioning industry to cash in on its great potential sales opportunities was emphasized by Paul B. Zimmerman, vice president of Grace & Bement advertising agency, Detroit, in an address before the first fall meeting of the Air Conditioning Council of Western New York in the University club here recently. Winners of the top four awards in the council's late-summer contest, "Why I Like to Shop in an Air Conditioned Store," were guests at the meeting, and received their prizes from Walter P. Davis, executive secretary. Reporting on the contest, Mr. Davis said that 1,600 entries had been received. Edwin R. Cooney, president of the council, presided at the meeting.

"The air conditioning business has been kicked around somewhat," Mr. Zimmerman told council members, "but like every new enterprise, it must first go through the development stage." He said the air conditioning business has now passed from the engineering into the commercial stage. This development, he declared, naturally causes some confusion—and, as in every new enterprise, may cause many firms to go out of business.

There must be a pooling of commercial interests if air conditioning is to realize its sales possibilities without undue business mortality, Mr. Zimmerman declared. As long as promotional emphasis is on the superiority of individual brands, the industry will not go forward, he said. The general idea of air conditioning first must be sold; after this is established, competition will follow.

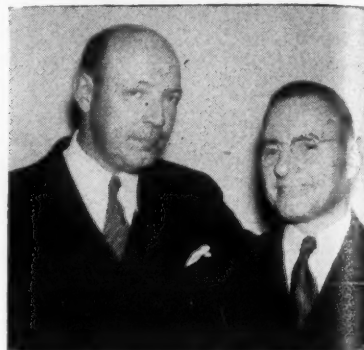
The same situation existed in the household refrigeration industry in 1925 and 1926, Mr. Zimmerman said. "They were all fighting among themselves," he declared. "This produced sales resistance. Finally they realized they had a basic service to sell. The Electric Refrigeration Bureau was organized, and standards established—then the industry began to move forward."

Now it is the air conditioning industry's turn to broaden its market by cooperative action, Mr. Zimmerman said. "This year," he said, "the air conditioning industry should make the American people understand what it has to offer. Nothing can stop this business. It will be the greatest specialty business yet developed. But the process of adding these new services in the home is a slow one."

"There has been much criticism of air conditioning—but only because the prospect has not been given enough reasons on the other side of the picture. Only by collective action can this be done."

Touching on the "tremendous market" in smaller homes, Mr. Zimmerman asserted that 25% of the homes in America today could afford air conditioning on a time-payment basis. Stressing the need for creative salesmanship, he declared that the industry needs manpower to carry its message clearly and effectively to the public.

Personalities In The News of the Industry



Edwin R. Cooney (left), Buffalo refrigeration and air conditioning dealer and president of the Air Conditioning Council of Western New York, with P. B. Zimmerman, vice president of Grace & Bement advertising agency and former G-E and Norge executive. Mr. Zimmerman is urging cooperative activity among manufacturers to "sell" air conditioning.



R. W. (Bob) Cook, new representative for Superior Valve & Fittings Co. in St. Louis.



A. A. Schneiderhahn, veteran Des Moines, Iowa appliance distributor, who has just been appointed distributor of Kelvinator refrigerators and other appliances in a territory comprising 74 counties in Iowa.



Lt. Comm. D. P. Heath, U.S.N., formerly representative in a midwest area for Tecumseh Products Co., and well-known refrigeration research engineer and inventor, pictured in uniform at his station at Cape May, N. J.

BEST 4 USE

NO OTHER REFRIGER- HAS SO -Y
IN ITS FAVOR, SO A PER-4 -CE
ANSUL SO₂ NOT BURN, NOT EXP- ITS
PUN- O- SERVES AS ITS OWN -NING AGENT,
MAKES -N THE SMALLEST EASY 2 DIS- IT IS
THE MOST -DEAL REFRIGER- 4 USE.

ANSUL SUL- DI- -IDE
AGENTS 4 KINETIC'S "FREON-12"
ANSUL CHEMICAL COMPANY • MARINETTE, WISCONSIN

AC-31
THERE IS AN ANSUL JOBBER NEAR YOU!

Why Curtis is the **Extra Value Line**

The CURTIS Tool Room and Metal Pattern Shop

This illustration shows a view of the Curtis tool room and pattern shop where all metal patterns, jigs, templates and special tools are made by expert tool and pattern makers. All wooden patterns are also made at Curtis. Such close, accurate control of designing and manufacturing processes is characteristic of Curtis, and our own pattern shops are another reason why Curtis is able to build extra value into every piece of Curtis equipment. From drawing board to shipping room, Curtis products are completely produced in the Curtis plant. The result is the exceptional value reflected in the high efficiency, economical operation and dependable performance of every Curtis unit.

At left—The Curtis 15 H.P. Shell and Tube Condensing Unit.

CURTIS REFRIGERATION
AIR CONDITIONING AND COMMERCIAL
"Builders of Condensing Units Since 1922"

CURTIS REFRIGERATING MACHINE CO., 1912 Kienlen Ave., St. Louis, Mo.
Division of Curtis Manufacturing Company

QUIET? **Minute Movies**

... TRY IT

... BUY IT

Bush Mfg. Co. HARTFORD, CONN.
BRANCH FACTORY 510 N. DARTMOUTH BLVD. CHICAGO, ILL.

Conrad Refrigeration Co. Makes Specialty Of Doing Installations the 'Unusual' Way

MINNEAPOLIS—Expansion of its business to include store fixture manufacturing as part of a complete service in the field of commercial refrigeration and air conditioning has won the Conrad Refrigeration Co. here, a 40% increase in business.

"We had always purchased fixtures in the past, and we felt that going into the actual manufacturing was a necessary step forward," explained H. Herman Conrad.

The firm moved six months ago to its present quarters, a two-story brick structure containing some 6,800 sq. ft. of space, three-quarters of this comprising the fixture, sheet metal, air conditioning, and refrigeration shops. Approximately \$10,000 was spent in the modernization.

DRUG STORE RENOVATION

The firm at present is concentrating in the drug store and bar-room modernization field. Activity is also strong in locker plant installations, the firm having developed a new type of system with multiple compressor hook-up of high efficiency.

The company is distributor for Lipman machines, Westinghouse commercial air conditioning and refrigeration, Viking showcases, Anheuser-Busch beer cabinets and soda fountains, Stanley-Knight soda fountains, and Taylor ice cream freezers.

COMMON CONDENSER IDEA

In the past 18 months the firm has installed a half dozen new locker plants embodying the multiple-compressor principle, with one compressor, as a rule, for each individual refrigerated room of the locker plant. The compressors have a common condenser, and they are inter-connected to eliminate chance of 100% breakdown so that one compressor may be cut out and its load transferred to another.

One of the most unusual of the firm's recent installations was a water cooling system for the St. Paul Bottling Co. Designed to cool 800 gallons of water per hour from 85° F. to 35° F. in two stages, the system, under actual operation, delivers water at 32° with a 40° temperature after carbonation. The system was designed for instant action and is economical in that no more water is cooled than is actually needed at any time.

The system consists of two 15-hp. Lipman compressors mounted as a single self-contained unit; two high and low pressure controls; two sets of gauges; a 30-ton evaporative type condenser with a 70° wet bulb; one set of dual fans of double inlet squirrel cage type; one "Freon" receiver with 150-lb. pump-down capacity; and one Acme cascade cooler, 42 tubes high, 6 feet long, and 4 sections wide.

WATER COOLING LAYOUT

First stage of cooling is designed to bring the water down to 55° F. with a 50° suction temperature; the second stage, down to 35° with a 30° suction temperature. A set of suction manifolds is arranged in such a way that in off-peak seasons one compressor only will be used where the maximum water temperature drop will be from 20 to 30°.

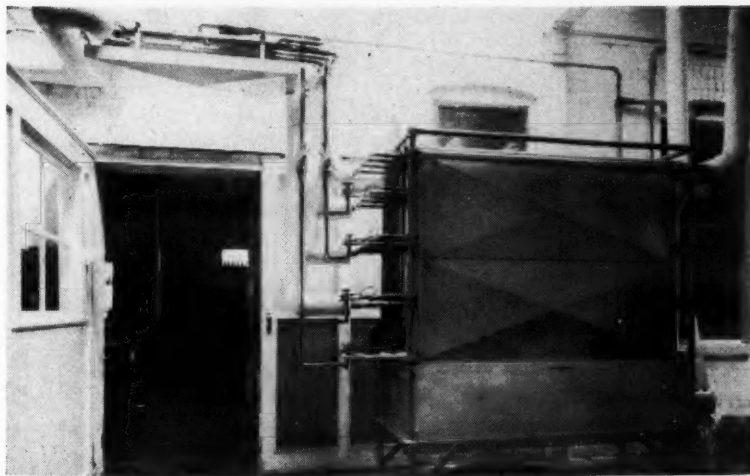
The equipment has enough capacity to furnish necessary water for a line-type heat interchanger to cool 60 gallons of syrup per hour from 90 to 60° F.

To make up for lag in equipment there is a reserve supply of water of 70 gallons in the Baudelot type cooler. Water flow from the city mains is regulated by a float switch and solenoid valve. Condensing water runs from 1 to 1½ g.p.m.

This two-step cooling operation is controlled by pressurestats set in such a manner that when suction pressure of one machine rises beyond the point where it can properly handle the load, the resulting pressure rise automatically cuts in the second compressor. The condenser fan and pump operate in conjunction with either of the compressors, and are so wired that compressors cannot run unless the condenser does.

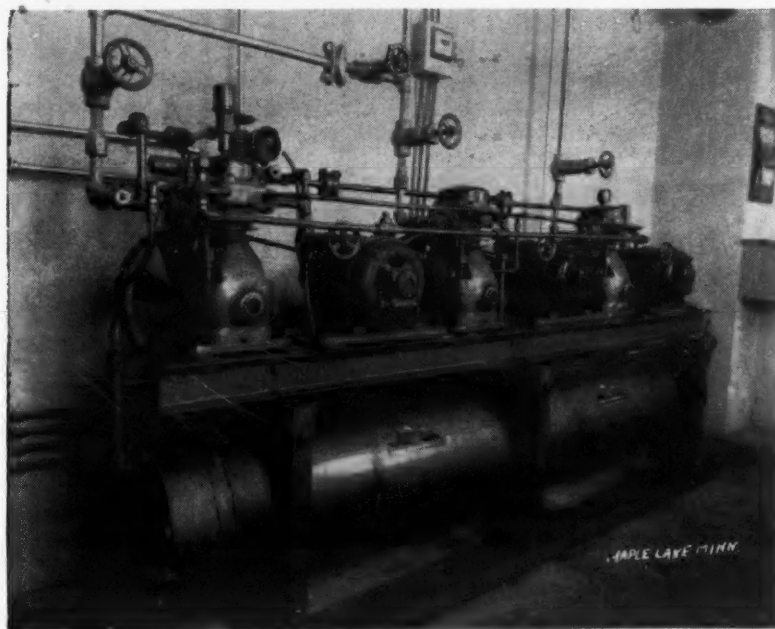
Incidental benefits derived from the installation result from the fact that the evaporative condenser uses a large volume of air, drawing it from the room, and keeps the air exceptionally clean due to the large volume exhausted.

Large Scale Water Cooling Job



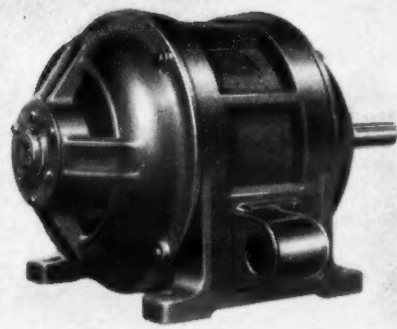
St. Paul Bottling Co. heat exchanger assembly with Baudelot water cooler, showing multi-outlet thermostatic expansion valves and section headers.

Hybrid Design For Locker Storage Plant



Three General Refrigeration compressors with but a single condenser are used to advantage in a locker installation by Conrad Refrigeration Co.

**NOW—
ONE COMPRESSOR MOTOR
FOR 3 APPLICATIONS**
Simplifies Stocking,
Installation Problems



Another G-E Development

FIRST the Valv-amp Rotor—NOW the Triple-voltage Connection

WITH the new triple-voltage connection developed by General Electric for high-torque, low-starting current motors, one motor has the same starting torque, breakdown torque, starting current, full-load speed, and efficiency on 199, 208, or 220 volts. On any of these voltages, the same motor can be connected to give any of three starting torque and current combinations.

This connection has won favor for G-E polyphase-induction motors in the refrigeration and air-conditioning industries with those who have tried it. Among their comments:

Purchasing men—"It decreases the number of motors we must buy and stock to meet the requirements of a variety of applications."

Installation men—"It gives us flexibility. If conditions on the job are not what we expect, we can get

the right torque-voltage combination by changing the motor connections and can tailor the motor to the job."

Salesmen—"The triple-voltage connection helps us give better service to our customers. Not only is the motor tailored to the job but if a motor must be replaced we can send one from stock without waiting."

Engineers—"On jobs in high buildings and on long lines where we may run into low voltages, the triple-voltage connection is mighty handy. Instead of getting another motor, we can usually reconnect the windings in such a way that we can get the right torque for the job."

The new triple-voltage connection, along with the Valv-amp rotor, makes a motor combination that can't be beat. Write for bulletin GEA-3479, which gives more information about this compressor motor. General Electric Co., Schenectady, N. Y.

GENERAL ELECTRIC



750-26

Carrier-Bock Takes Larger Quarters

DALLAS, Tex. — Carrier-Bock Corp. has occupied larger quarters at 711 N. Harwood St. The company formerly was located at 2022 Bryan St.

Stafford-Smith Takes Over North-Davis In Kalamazoo

KALAMAZOO, Mich. — Stafford-Smith, Inc., a new Kalamazoo firm, has taken over the commercial refrigeration business of North-Davis Co. David D. Stafford, former engineer for the North-Davis firm, and Randall E. Smith, ex-service manager, are the incorporators, listing \$10,000 in common stock.

The firm has Kelvinator, Tyler store fixture, and Uniflow beer equipment distributorships for the seven counties surrounding Kalamazoo. In addition, Mr. Stafford said, air conditioning, automatic heat, stokers, and oil burners will be carried. Other electrical appliances are to be included in the lines.

Installation, engineering, and service work will be handled by the new organization.

Mr. Stafford has been with North-Davis for the last two years, and before that was with Kelvinator at the factory, in Cincinnati, and Cleveland, having charge of installations in Chicago at one time.

Mr. Smith has had about 15 years experience in servicing refrigeration and heating equipment.

Wolverine Earnings For 9 Months Go Up

DETROIT—Net earnings of Wolverine Tube Co. for the nine months ended Sept. 30 equaled \$285,897, or 67 cents a common share, after adjustment of earnings for the first six months to reflect the new normal and excess profits tax rates. This compares with net earnings of \$283,148, or 66 cents a common share, for the same period of 1939.

For the three months ended Sept. 30, net earnings after provision for taxes amounted to \$93,974, equal to 22 cents a common share, against \$108,050, or 26 cents a common share, for the third quarter of the previous year.

Directors declared the regular quarterly dividend of \$1.75 per share on the company's 7% cumulative preferred stock, payable Dec. 2 to stockholders of record Nov. 18.

ORDINARILY when the head pressure of a refrigerating machine seems to be too high the service engineer pumps the system down and purges by cracking the purge valve open. He hopes that the air and other non-condensable gases are concentrated near the purge connection. He tries to allow all of these non-condensables to escape without the loss of too much refrigerant.

With the "Little Giant" Purger the chance conditions—the seems—the pumps down—the hopes—the tries—and the too much—in fact, all the doubts—are eliminated. He knows definitely whether or not the system needs purging. If purging is needed it can be accomplished without interruption of the plant operation. He knows that non-condensable gases are concentrated at the purger. He can positively expel them without an appreciable loss of refrigerant.

Advantages of Purging With The "Little Giant"

NO GUESSING—

Positive indication when purging is necessary—the sight glass gives visible evidence of non-condensable gases in system.

NO REFRIGERANT LOSS—

The air in the system is completely separated from the refrigerant before the purge valve is opened.

SIMPLE TO OPERATE—

All operating valves easily accessible. Not necessary to check pressures or temperatures. No need to shut down the system.

POWER SAVINGS—

Power savings, due to a reduction in head pressure will pay for the "Little Giant" many times over.

MANUAL OPERATION—

Fully manually operated, there is no possibility of a slow leak developing which would cause a loss of refrigerant before cause is discovered.

THE

Purger is mounted on a solid oak panel and can be conveniently fastened to the wall or to other suitable locations. Write us for full particulars and instructions for installation and operation. Order through your jobber.

MUELLER BRASS CO.
PORT HURON, MICHIGAN

Sept. Commercial Refrigeration Sales By 15 Nema Companies

The following report of commercial refrigerating equipment sales for September, 1940 was made to the Commercial Refrigeration Section of the National Electrical Manufacturers Association (Nema) by the following 15 companies:

Baker Ice Machine Co., Inc., Brunner Mfg. Co., Carrier Corp., Crosley Corp., Frigidaire Div. General Motors Corp., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div. Nash-Kelvinator Corp., Merchant & Evans Co.,

Norge Div. Borg-Warner Corp., Servel, Inc., Universal Cooler Corp., Vilter Mfg. Co., Westinghouse Electric & Mfg. Co., and York Ice Machinery Corp.

SALES FOR SEPTEMBER, 1940	Domestic		Canadian		Other Foreign		Total World	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1. Bottle Water Coolers—Complete.....	115	\$ 8,869	8	\$ 608	13	\$ 979	136	\$ 10,456
2. Pressure Water Coolers—Complete.....	1,134	122,605	31	3,221	148	14,596	1,313	140,422
3. Water Coolers—Low Side Only.....	64	3,648	.....	.....	4	245	68	3,893
4. Ice Cream Cabinets—Complete.....	1,491	225,016	25	4,472	17	3,140	1,533	232,628
5. Ice Cream Holding Cabinets Only (Remote)....	85	13,261	5	722	2	207	92	14,190
6. Bottle Beverage Coolers—Complete.....	2,158	209,839	35	3,076	47	5,543	2,240	218,458
7. Beverage Coolers (No High Sides).....	44	4,108	5	363	5	465	54	4,936
8. Milk Coolers—Complete.....	.....	.....	.....	.....	.....	.....	.....	.....
9. Milk Cooling Cabinets (No High Sides).....	28	1,338	.....	.....	.....	.....	28	1,338
10. Commercial Evaporators—Not Reported Above (Including Cold Diffusers, Brine, and Other Spray Evaporators, Etc.).....	1,739	92,566	286	9,424	303	10,491	2,328	112,481
11. Condensing Units Less Than ½ Hp.....	2,947	111,832	120	5,530	96	4,990	3,163	122,352
12. Condensing Units—½ Hp.....	1,461	90,263	49	3,160	83	5,081	1,593	98,504
13. Condensing Units—¾ Hp.....	1,151	99,375	62	5,370	66	5,739	1,279	110,484
14. Condensing Units—1 Hp.....	603	66,855	31	3,313	17	1,821	651	71,989
15. Condensing Units—1 ½ Hp.....	360	48,905	10	1,309	22	3,107	392	53,321
16. Condensing Units—2 Hp.....	205	35,081	9	1,599	57	9,876	271	46,556
17. Condensing Units—3 Hp.....	119	24,496	6	1,257	38	8,186	163	33,939
18. Condensing Units—4 Hp.....	77	22,997	.....	.....	18	3,222	95	26,219
19. Condensing Units—5 Hp.....	41	17,330	2	902	5	1,107	48	19,339
20. Condensing Units—7 ½ Hp.....	43	31,597	1	629	.....	.....	44	32,226
21. Condensing Units—10 Hp.....	9	6,264	.....	.....	.....	.....	9	6,264
22. Condensing Units—15 Hp.....	10	9,414	.....	.....	.....	.....	10	9,414
23. Condensing Units—20 Hp.....	4	5,679	.....	.....	.....	.....	4	5,679
24. Condensing Units—25 Hp.....	.....	.....	.....	.....	.....	.....	.....	.....
25. Condensing Units—30 Hp.....	2	3,907	.....	.....	.....	.....	2	3,907
26. Condensing Units—40 Hp.....	6	7,645	.....	.....	.....	.....	6	7,645
27. Condensing Units—50 Hp.....	.....	.....	.....	.....	.....	.....	.....	.....
28. Total—All Condensing Units (11 to 27).....	7,038	581,640	290	23,069	402	43,129	7,730	647,838
29a. Condensers—Sold Separately Shell & Coil or Shell & Tube.....	1	110	.....	.....	.....	.....	1	110
29b. Evaporative Type.....	7	3,562	.....	.....	.....	.....	7	3,562
30. Total—All Commercial Refrigeration.....	.....	\$1,266,562	.....	\$44,955	.....	\$78,795	.....	\$1,390,312

Ice Industry Drive To Feature 'Scotch Ice'

NEW ORLEANS—A \$750,000 ice advertising campaign, to be concentrated in national magazines and farm papers, was announced to delegates attending the National Association of Ice Industries convention here by Hurley G. Hust, advertising director of National Ice Advertising, Inc.

Featured in the campaign will be an improved product, "Scotch Ice," so-called because of its slower meltage. The product is manufactured by a process available to all association members. Not now generally available, it will be plugged nationally after more companies are making use of it.

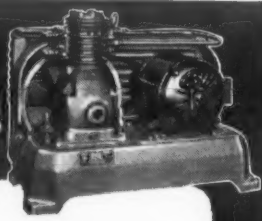
With copy based on women's recognized interest in personal appearance and foods, advertisements will feature direct color photographs, and will show such scenes as a woman going through the usual beauty ritual, with the headline, "But you can't rub cold cream into your vegetables!"

This will lead into the story of the high humidity of ice, and a comparison with the asserted "dry cold", of mechanical refrigerators. The campaign also will direct attention to the industry's new ice refrigerators, and their low prices in comparison to other types of refrigerators. New ice refrigerators are priced from \$29.50 to \$94.50.

Titus Co. Gets Contract For Dallas Apartments

DALLAS, Tex. — W. E. Titus Wholesale Co., Crosley distributor, has been awarded the contract for 18 electric refrigerators to be installed in a new apartment building constructed in Dallas by J. Earl Presley.

EASY
TO
SELL!



More than 20 years of high reputation...in every kind of refrigeration service...has established the name "Lipman" as a BUY word that breaks down sales resistance. Make this reputation your sales asset...for greater profit and better customer satisfaction.



GENERAL REFRIGERATION DIVISION
Yates-American Machine Co.
Dept. AC 1 Beloit, Wisconsin

Builds Friendships Bumping Out Fenders, Sells Them Commercial Refrigeration

FERNDALE, Mich.—From automobile body bumping and repairing to a dealer for General Electric commercial refrigeration, air conditioning, and heating equipment, might seem like a long jump to some people, but Roy Wetmore, owner of Wetmore's Safety Sales & Service, is taking it right in his stride.

For a number of years Mr. Wetmore has been building up a business in the suburbs north of Detroit from a prominent location on Woodward Ave. Having made friends with several thousand customers, he decided to expand his business, and selected commercial refrigeration and air conditioning as the best money making possibility for his surplus time and energy.

After securing the General Electric franchise, Mr. Wetmore converted one corner of his body shop into an attractive showroom for General Electric products. Finished in knotty pine, the showroom faces Woodward Ave., where thousands of cars pass day and night.

To let the public know he is in business Mr. Wetmore put a large neon sign in the window and has been using direct mail advertising to his regular list of automobile customers.

At the present time two salesmen are employed, G. P. Riddell and C. E. Norris. Mr. Wetmore handles a great deal of the selling himself, and W. J. Conner handles the company's records.

Under the set-up Mr. Wetmore is interested only in selling G-E equipment, as all installations and service calls are handled by the General Electric branch in Detroit.

"This makes a very fine arrangement for a dealer," Mr. Wetmore said. "We can concentrate all our efforts on selling merchandise."

After three months in business, the organization has already sold commercial refrigeration equipment including a Jewett Beer-A-Dor, one commercial air conditioning system, and a number of automatic heating jobs.

Dallas Printing Establishment Determines Absolute Humidity Conditions For 4-Color Press Work

DALLAS, Tex. — Absolute humidity control—eliminating costly "off-register" printing on three and four-color decals—has been effected through air conditioning the Superior Decalcomania Co. plant here.

Installed in 1938, the air conditioning system maintains a year-around temperature of 78° F. and humidity of 54% in the press and processing rooms at the plant. It was found that these conditions are most economical, resulting in substantial reductions in time as well as production costs.

Because decalcomania paper is very sensitive to changes in humidity of the air, sudden increases in humidity in the processing room

cause this paper upon which decals are imposed to curl or stretch to such a degree that the fine detail work required in various color designs fails to register properly. The presses are controlled by air and when the sheet is too long, or too short, the press will not carry it through the cylinders properly.

Each color is applied in separate "runs." Unless accurate humidity is maintained continuously for these "runs," one color will not register with succeeding colors.

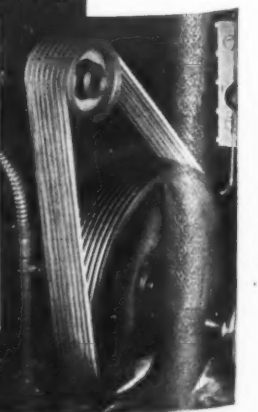
Operating cost of the air conditioning system at the Superior plant is estimated at about \$150 a month, in spite of the fact that operations are carried on 24 hours a day.

MANHATTAN V-BELTS

Give Steady Service . . . for Fan, Compressor and Pump Drives

Steady, silent, smooth-running MANHATTAN V-Belts deliver lasting service because of their exclusive construction—endless whiplcord strength member is in the neutral axis and completely floated in rubber. Resist side wear, stretch and destructive internal heat.

THE MANHATTAN RUBBER MFG. DIVISION
OF RAYBESTOS-MANHATTAN, INC.
45 Townsend Street Passaic, New Jersey



Cool Employees Are Contented Employees Cooled Bank Keeps Executive of Laundry Company Finds Books In Balance

And the Dangers of Soiling Are Greatly Reduced

BRIDGEPORT, Conn.—"Air conditioning presents many opportunities to the operator of a laundry," asserts George Crawford, president of the Crawford Laundry Co. of this city. Since an air conditioning system was installed in his laundry two years ago, Mr. Crawford has noticed many improvements in the operation of his business which have had a real dollars-and-cents value.

Among these have been better labor relations, less absence of employees during hot weather, more production, better quality work, better control of summer peak loads, and comfort for customers visiting the plant.

The conditioning system, installed by L. C. Kelly Co., General Electric distributor, utilizes 58° city water as a cooling medium. After the water has been run through the air conditioning system, it is used in the laundry.

Because of the 6 to 8° temperature rise in the water used to take heat out of the air, the actual water heating cost in the laundry has been reduced, Mr. Crawford has found.

"Air conditioning has made working conditions far more comfortable in our laundry," Mr. Crawford states. "Generally speaking, most labor troubles can be traced to people who don't feel well—for various reasons. Employees who are kept cool are more contented."

"When it is considered that some units used in a laundry require a minimum temperature of 300° F., it is easy to understand the effect on employees working near these machines."

"Some of the employees would come to work in the morning on hot days," Mr. Crawford reports, "but when they went out for lunch they would fail to return for the balance of the day. This was a perfectly natural reaction, as cases of workers being almost overcome by the heat were quite common. Since the cooling equipment was installed, our laundry is cooler than the outdoor temperature, and as a general rule workers stay on their jobs."

"Because employees are more comfortable, production has been increased," Mr. Crawford points out, "especially during hot weather. The psychological effect is very important—because when our workers are in a good frame of mind they put forth more production effort."

"Another one of our hot weather problems is the soiling of finished garments from the perspiration of workers. It is difficult to keep work clean when sweat is pouring from the face and hands of employees packing laundry. Since the cooling system was installed, the quality of our work has improved."

"Customers taking vacations send clothes to the laundry, thereby creating a sharp peak business dur-

ing summer weather. When our business is being operated at capacity, a comfortable atmosphere is essential to get out the desired quantity of work."

"I have also discovered that the effect of air conditioning on our customers has been favorable," Mr. Crawford said. "Many people bring their laundry to the plant, and are now willing to stay a few minutes and watch the work in progress, instead of immediately leaving the hot steamy atmosphere."

Indicative of the need for air conditioning in a laundry is the fact that the Crawford system takes 6 gallons of moisture out of the air every hour during the process of reducing the temperature and humidity in the plant.

GREENSBORO, N. C.—Fewer banking errors, a definite pick-up in personnel efficiency, and a more pleasant relationship with customers and depositors have resulted from the complete, year-around air conditioning of the Security National Bank here.

Following the installation, a close check was made by the bank's president, N. S. Calhoun, on results obtained. He reported a noticeable pick-up in efficiency among employees; fewer errors; elimination of practically all dirt and dust; and a pleased attitude on the part of customers and depositors.

All three floors of the bank building are completely air conditioned. This includes the trust department, located in the basement, the main banking rooms on the first floor, and the directors' room and general and

private offices on the second floor. Extreme dampness in wet weather, and excessive heat in summer formerly had been major problems in the trust department.

Tribute to the efficiency of the bank's air conditioning equipment came from President Calhoun following a recent conference of officers.

After an all day session during which 10 men were crowded into a room 14 by 27 feet, they all reported they felt "as fresh as when the conference started."

G-E's Room Cooler Wins Design Prize

NEW YORK CITY—The General Electric room cooler was selected as one of the four winning entries in Electrical Manufacturing magazine's annual product design contest, according to a recent announcement.

The other winners were Telautograph Corp., Gould & Eberhardt, and International Business Machines Corp.

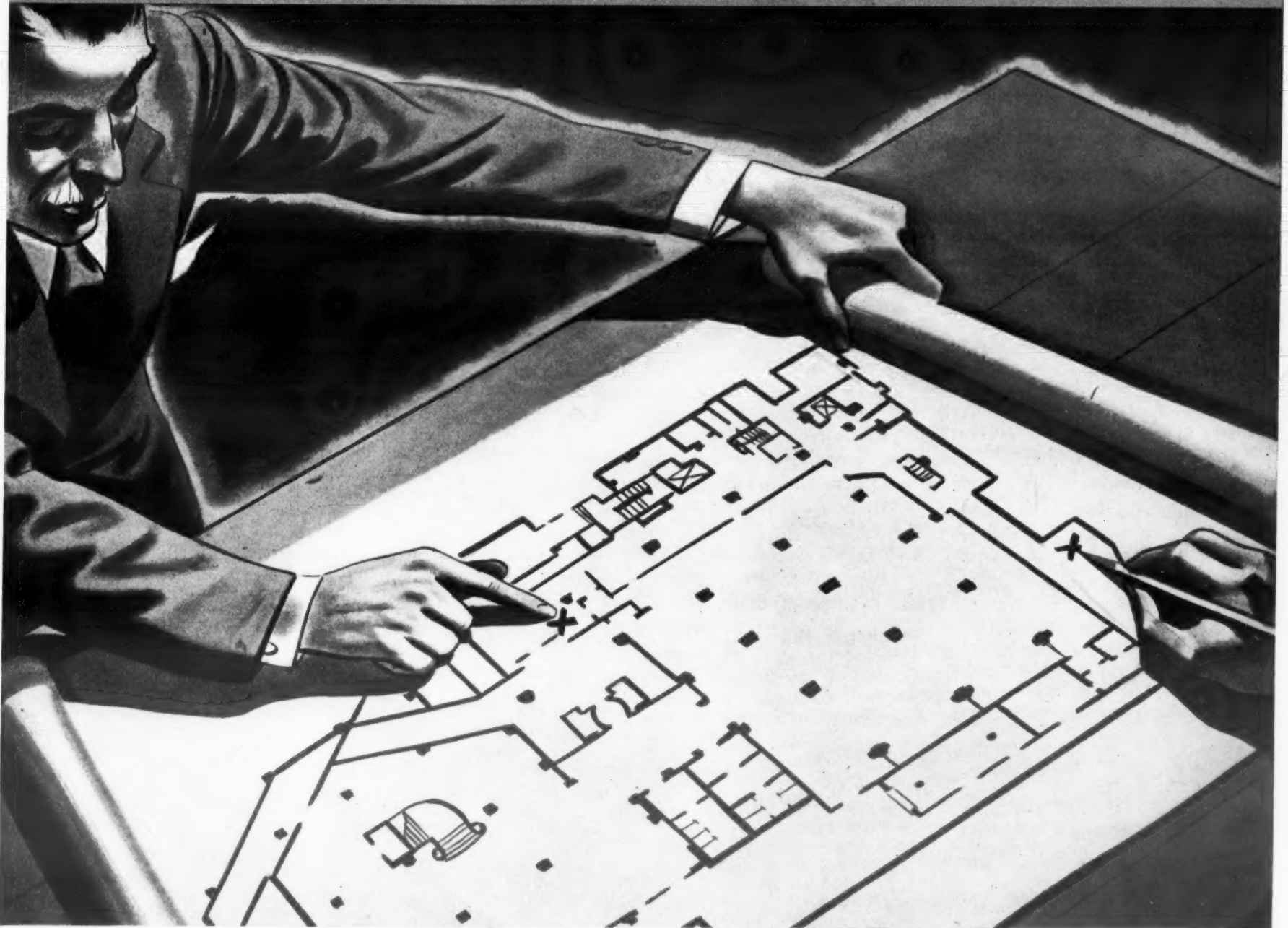
York To Cool Ford Aircraft Motor Plant

YORK, Pa.—Contract for four complete refrigerating machines to be used in air conditioning the Ford Motor Co.'s new aircraft engine plant has been awarded to the York Ice Machinery Co. here. The 4,000-ton system is said to be the largest industrial air conditioning contract ever awarded as a single installation.

Four 1,000-ton York-Allis Chalmers turbo-compressor water cooling units will supply refrigeration for part of the air conditioning system. The new centrifugal units are driven by steam turbines.

The new Ford plant will be devoted exclusively to the manufacturing of Pratt & Whitney aircraft motors. In line with modern defense trends, the plant will be windowless, and completely air conditioned, permitting manufacturing operations to continue without interruption during "blackouts."

*"Notice how **FREON** refrigerants give us more flexibility in locating the air conditioning plant!"*



Hall Develops Unit For Printing Plants

CEDAR RAPIDS, Iowa — Controlled humidity for printing plants is made possible by the new cabinet type humidifier built by the Hall Mfg. Co. here. The device, which is said to be capable of maintaining the desired humidity in any plant up to 20,000 cubic feet, is priced at \$169.50.

Equipped with a magnetic control switch, float valve, and humidistat, the unit can be used in multiple in larger printing plants. Operation of the unit is based on pumping water through a filter zone in the air stream from a centrifugal fan which delivers 1,200 c.f.m.

Finished in baked enamel the unit is equipped with a directional flow grille on the front.

U. S. Airco Opens Export Division

NEW YORK CITY—Effective Nov. 1, the United States Air Conditioning Corp., Minneapolis, will handle its export business through its export division at 810 Graybar building here, reports A. A. Feinberg, president.

"FREON" refrigerants in the air conditioning system permit wide leeway in locating the cooling plant, thus resulting in more efficient design and use of space.

Equipment using "Freon" refrigerants can be placed right in the space to be cooled, or close to material to receive the refrigerating effect, because of the harmlessness of the refrigerant and the quietness of operation. The system is compact, occupying comparatively little floor space and low head room. The light weight of the equipment permits roof installations where they are desirable.

All these are factors of great impor-

tance to architects, building owners and operators, since it is their problem to make the most efficient use possible of building space.

Equipment using "Freon" refrigerants has low initial cost and exceptionally low operating cost. Since these refrigerants do not corrode any of the metals used in air conditioning, they permit use of materials which provide maximum heat transfer.

"Freon" refrigerants are used almost exclusively in new air conditioning installations because of their unique safety. They meet all the safety specifications set by the Underwriters' Laboratories of Chicago. Use of "Freon" refrigerants

avoids any possibility of penalty to your client in insurance rates, and promotes safety of life and property.



FREON

REG. U. S. PAT. OFF.

safe refrigerants

"Freon" is Kinetic's registered trade mark for its fluorine refrigerants.

KINETIC CHEMICALS, INC., TENTH & MARKET STREETS, WILMINGTON, DELAWARE

AIR CONDITIONING & REFRIGERATION NEWS

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F. M. COCKRELL, Founder

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Business Will Be Good In 1941—Why Sulk?

NOBODY that we've heard of has closed up shop since Franklin Delano Roosevelt was re-elected for a third term—despite a number of threats that were expressed along that line. The general feeling now seems to be: "Well, that's over; let's get back to work."

It is no secret that business men in general were not only "for" Wendell Willkie; they were working for him, actively. The amount of executive man-hours contributed to this campaign by members of the refrigeration industry alone would reach a total which would surprise most people.

Nation Must Go Into Economic High Gear

But the thought now seems to be: "It isn't the way we would have had it, but the votes have been counted, and we'll abide by the result. It's up to us to get this nation into economic high gear, and we're going to do it if it kills us."

It can be done.

The refrigeration industry is already doing far more, comparatively speaking, than most industries.

The air conditioning industry shows great promise, and is doing yeomanlike work in bringing order out of what was a boggy chaos.

Air Conditioning & Refrigeration Should Continue To Lead

These two industries should continue to lead the way, and demonstrate to America that Private Enterprise, which is the foundation of Democracy, is a far better way of Progress as well as of Life than totalitarian regimentation.

In this connection the editor of Printers' Ink weekly (Nov. 8 issue) quotes from the Bible, and most aptly. The speaker is St. Paul:

"This one thing I do: Forgetting about those things which are behind and looking toward those things which are before, I press toward the mark for the prize!"

There, now, is a motto for business.

Depressive Effects of War In Europe Should Lessen

Two things have been holding back American business this year: the election, and the war in Europe.

The election is over, and it didn't hurt as bad as business men thought it would.

The war in Europe isn't over—not by a long shot—but my! What a turn it has taken for the better! Resistance being put up by the plucky Greeks is thrilling everybody! If a little country like that can foil the Totalitarians, then they can't be so tough!

England Is Tough, and Getting Stronger Daily

And look at England! There'll always be an England! Last June our own Administration was dolefully predicting that England couldn't withstand the Nazis through the summer. Secretary of War Stimson gave the British just 30 days more.

But there they are—still fighting, and growing stronger every day.

If Hitler can't cross the narrow little English channel, how is he going to cross the Atlantic ocean?

People No Longer Fear That Hitler Will Invade America

People in America who felt the Reichsfuehrer's hot and malodorous breath blowing down the backs of their necks last summer are now beginning to feel a little foolish.

Even Mother Earth seems to be doing her share to disrupt the conquering plans of the Nazis, with her destructive earthquake in Rumania!

Public Psychology Ripe For Retail Boom

All in all, prospects for the future seem so much brighter now than they did six months ago that Public Psychology, that indeterminate, indefinite Something which has so much to do with sales curves and business prosperity, should give vent to its relief in a manner that will put more dollars in the till for everyone.

This nation's fifteen-billion-dollar rearmament program has already started many wheels turning, and called thousands upon thousands back to work. And yet it really won't get under way until next spring. Watch business indices soar then! What's more, this program won't be finished until 1943, if then. It may get bigger and bigger.

Every Class of Business Will Benefit From Present Situation

This means a steady rise in employment, a steady increase in payrolls. In turn, this means more money for normal products of American industry. It means more money for food, which means more money for farmers, which

means still more money for American industry.

Continuation of the blockade, plus war-totalization of British industry, makes America practically the only source of manufactured products for South and Central America, for South Africa, for Australia and New Zealand, for the East. These factors will be felt with increasing momentum as 1941 rolls along.

Wholesalers & Retailers Had Better Stock Up Now

Will business be good in 1941? How can it help it? Every manufacturer, every wholesaler, every retailer should be prepared for it by stocking up his shelves and his warehouses now for the buying boom ahead.

This is no time for grumbling. It is a time for working, for preparing, for planning ahead. It is a time for realization of the American dream. As Philip D. Reed, chairman of the board, General Electric Co., puts it:

Philip Reed, G-E Board Chairman, Declares:

"The election is over; the results are known. Whether our preference was for Mr. Roosevelt or Mr. Willkie, we Americans know that the future of our country depends not on politics but on economics and national unity.

"The next four years bid fair to be the most critical and difficult ones within memory of living man.

"Profound wisdom, steadiness, and vision will be needed to guide America through this war-torn world, preserving at once our integrity and ideals as a great democracy, and exerting at the proper time and place the full weight of our power and leadership toward a realistic, economic, and therefore lasting world peace.

"And in the meantime the creation of an impregnable defense, the training of millions of men, and the building of millions of war machines is itself a Herculean task—especially so when we recognize that the production of everyday useful goods must go on and up if we are to

They'll Do It Every Time . . . By Jimmy Hatlo



preserve our standard of living and avoid a wartime boom.

Will Need the Help of Every Loyal American

"Add to this the task of maintaining a united, confident, and understanding people awake to the gravity of our problems, ready to serve and, if need be, to sacrifice in their country's interest, and we get some notion of the nature and enormity of the burden that yesterday's election placed upon the shoulders of our President.

"He will need the help of every loyal American. Let us all stand by."

To that we say: "Amen. Let us not only stand by—let us go forward!"

LETTERS

The Profit Outlook For Locker Plants

McKinney & Seebeck
113-115 W. Monroe St., Bangor, Mich.
Editor:

We are interested in installing a public locker service in conjunction with our meat department.

This being a check store for the A. C. Nielsen Co. of Chicago, we asked their representative concerning this proposed locker service and he advised the writer to get in touch with you.

Have you any information you could give us relative to locker service in a town such as ours, 1,300 inhabitants, good farming community to draw from? Approximate cost of installation per locker?

Have you any information as to profits accruing from such locker service, considering the investment? Would you consider it a wise move for a firm with a limited amount of capital to go, well say, heavily in debt to install such a service?

Any information you may give us will be treated strictly confidential and will certainly be much appreciated by us. A stamped envelope is enclosed for your answer.

HUGH A. SEEBECK
Answer: Manual No. LS-1, Refrigerated Locker Storage, which we publish covers this subject very completely. You will notice from the chapter-by-chapter outline of this book that it covers all phases of locker storage refrigeration and would be a very valuable aid to the construction engineer as well as to the operator of a locker plant.

This book is a collection of articles originally printed in the weekly issues of AIR CONDITIONING & REFRIGERATION NEWS, so you can read the actual case histories of various types of lockers and various problems met by the

operators. Such articles as the following would answer the questions posed in your letter: "Cost of 150-Locker Plant in Illinois," "Total Estimated Locker Plant Cost," "Success or Failure of Plant Up to Manager," "Gross Income from Lockers for Year," "Operating Costs of Plant for Year." These, of course, are only a few of the long list of articles.

We know that this manual has been invaluable to many people in building and managing locker storage plants, and it can answer your questions, too. It sells for \$1.00.

'Democracy' Editorial 'Able & Timely'

National Electrical Wholesalers Assn.
165 Broadway, New York, N. Y.

Dear Mr. Taubeneck:
May I compliment you on the exceedingly able and timely editorial "Democracy in Business" which appears in your issue of Oct. 30. You have certainly given the business heads among your readers plenty of food for thought.

It was a pleasure to meet you in Pittsburgh and I hope that you may be able to attend our next meeting at Hot Springs, Va., in May, 1941.

E. DONALD TOLLES,
Managing Director

Want an Export Agent In Buenos Aires?

Shepherd & Cia.
Avda. R. Saenz Pena 825
Buenos Aires, Argentina

Dear Sir:

On a straight commission basis, we are in an A-1 position, in business, socially, government, municipal, and public utility fields to help American firms of any line build up or increase export sales to the whole of Argentina. Through our services, we believe that a good many American industries, regardless of size, can profit now of present favorable opportunity; and one fact is certain—manufacturers can develop their export business far more economically than they have developed a similar volume of domestic sales, for we look after all the details.

Although we propose to make cash sales, in other cases, besides the usual credit information sources, our connections permit us also to supply in each instance the most reliable credit reports without any charge.

We advocate sound business fundamentals and endeavor to apply them to our daily tasks. Our references are given so that the stability and character of this company may be thoroughly investigated. They are:

American Foreign Credit Underwriters Corp., New York City.

The Standard Ultramarine Co., Huntington, W. Va.

A. V. Berner & Co., 15 Whitehall St., New York City.

R. G. Dun & Bradstreet Co., in this city, Buenos Aires.

The National City Bank of New York, in this city, Buenos Aires.

Banco de la Nacion Argentina, in this city, Buenos Aires.

Banco de la Provincia de Buenos Aires, in this city, Buenos Aires.

Banco Frances e Italiano, in this city, Buenos Aires.

We beg of you to kindly help us contact good firms for us to act as their representatives in this country.

E. ALVAREZ V.,
Manager, Sales Promotion

Rex Cole Men Take the Air



Two Rex Cole executives, Robert Stevenson (left), vice president, and Daniel F. Secord, treasurer, are shown here as they boarded an airliner at La Guardia field to attend General Electric's regional electrical appliance conference in Chicago. With them is Stewardess Helen Flynn.

Ex-Crosley Men Form Merchandising Group

CINCINNATI—Thomas W. Berger, formerly general sales manager of Crosley Corp., has organized a new firm, Thomas W. Berger, Inc., as a sales corporation to handle general appliance lines on a national scale.

Associated with Mr. Berger in the new venture are two former Crosley executives, Neil Bauer, manager of distributor sales, and William H. Shipley, manager of major account sales, who have resigned their positions with Crosley to become vice presidents of the new organization. G. Earl Walker, who formerly was sales promotion manager for Crosley, also will be associated with the Berger firm. S. S. Stephenson will be treasurer.

\$154 Average Price of Knoxville Sept. Sales

KNOXVILLE, Tenn.—Total of 178 electric refrigerators were sold by appliance dealers in Knoxville during September, with an average sales price of \$154. Ranges topped refrigerators in sales, with 182 for the month. Average sales price of ranges was \$149.

Total electrical appliance sales for the month were:

	Units
Refrigerators	178
Ranges	182
Water Heaters	50
Washers	264
Irons	5
Roasters and Cookers	78

Stewart-Warner's Michigan Delegation



An extra-large table was reserved for representatives of Morley Bros., distributorship with branches in Detroit, Grand Rapids, and Saginaw, at the opening banquet of Stewart-Warner's annual refrigerator convention.

Buffalo Dealer Opens Appliance Branch

BUFFALO — Baldwin Furniture Store has opened new quarters at 52-54 Genesee St. featuring a complete line of Hotpoint appliances. The new quarters are operated in addition to the store at 120 E. Genesee St. Joseph Baldwin, Sr. is founder of the firm; Joseph Baldwin, Jr., is president and treasurer; and George Baldwin is secretary.

919 New Crosley Dealers

CINCINNATI—Crosley Corp. added 919 new radio dealers during the month of October, reports R. I. Petrie, vice president and general sales manager.

Samuel S. Helburn Dies

MONTGOMERY, Ala.—Samuel S. Helburn, 48, president of the Helburn Co., Frigidaire dealer, died Oct. 23.

New Service-Station Store

EVANSTON, Ill.—Bulk Service Stations, Inc., which carries a complete line of major electrical appliances, has opened a new store adjacent to its service station.

Fourth Logan Branch Opened

CHICAGO—The Logan Appliance Co. has opened its fourth branch store at 6413 S. Halsted St.

Old Style Trays have seen their Last Days...



IT'S INLAND ICE TRAYS FOR Maximum Convenience Minimum Cost



The SHUCKER TRAY



The TILT OUT TRAY

There's no doubt about it. These Inland ice trays relegate old style ice trays to obscurity. Today when you say ice cubes, in a flash you think of ice trays by Inland... for a few cubes or a brimming bowlful—instantly, full-sized and unshattered.

It's easy to demonstrate and sell the advantages of these fast-freezing, quick-releasing Magic Finish Ice Trays by Inland. For superswift, maximum convenience, it's the Shucker Tray, of course. And for the

quick-release feature at minimum cost, it's the Tilt Out Tray, beyond question. In other words, for original factory equipment by leading makers or for replacement sales by dealers, ice trays by Inland are first choice for every price and every purpose. For details, prices and discounts, write to

INLAND MANUFACTURING DIVISION
GENERAL MOTORS CORPORATION
DAYTON, OHIO CLARK, NEW JERSEY



The Preferred METHYL CHLORIDE for Service Work... Backed by Du Pont Technical Assistance

PROMPT DELIVERY COAST-TO-COAST



E. I. DU PONT DE NEMOURS & CO. (INC.)
The R. & H. Chemicals Dept.
Wilmington, Delaware
District Sales Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco

Central Service Supply Stores Show Advances In Jobber Display Methods

This "information department" display demonstrates the clever and complete manner in which are displayed the Master Service Manuals and the Air Conditioning Manuals published by Business News Publishing Co., as well as the display of copies of the weekly issues of Air Conditioning & Refrigeration News. This rack, made from odd pieces of shelving material, has helped to merchandise these educational items. Also in the "information department" is a bulletin board of the local chapter of the Refrigeration Service Engineers Society.



For several months AIR CONDITIONING & REFRIGERATION NEWS has suggested methods of improving the display of products in the establishments of refrigeration parts and supply jobbers. In some instances we have shown pictures of what we considered to be good display efforts on the part of refrigeration parts and supply jobbers.

In the pictures of the Central Service Supply Co.'s stores in Scranton, Pa. and Syracuse, N. Y. shown on this page we think the reader will see one of the outstanding examples of what can be done to display refrigeration parts, supplies, and accessories. Ted Glou, one of the most aggressive merchandisers in the parts jobbing field, has made a point of exposing his merchandise to buyers in the greatest display possible, and hasn't neglected well-designed store display as one avenue of exposure.

At the left is the "information section" in one of his stores, which is described in the lines alongside the picture.

(Top right) Frank Wren stands by the counter in the Scranton store, but either through luck or intelligent posing on the part of the cameraman he doesn't obscure any of the display details. Note how a maximum of products is open to the customer's view. Many small parts are in the neatly labeled boxes on the shelf behind the counter. Many other items are so placed on the top of the shelf as to attract attention. Good use is made of the sidewalls, with a display of Master Service Manuals and some packaged items. V-belts are hung neatly out in full view.

(Center right) in the Syracuse store attention is centered on control items in a beautiful, especially lighted display panel, with the Automatic Products clock for jobbers making a fine top piece. Note, however, all the packaged items that are out in the open in the shelving along the wall.

(Bottom right) A well-groomed sales staff is also part of the display story. From left to right: Jim Coonradt, Steve Golder, Bernice Wanno, and Ted Glou line up at the counter at the Syracuse establishment.



Perfex Corp. Moves New York Office

NEW YORK CITY—Perfex Corp., Milwaukee manufacturer of heating and cooling control equipment, has moved its New York City office from 90 West St. to 370 Lexington Ave. George D. Kingsland, vice president in charge of the company's eastern sales division, will have headquarters here.

Glen Layman Joins Orr Co. As Sales Representative

PITTSBURGH—Glen A. Layman has joined the refrigeration supplies department of William M. Orr Co. here as sales representative. Mr. Layman was formerly commercial refrigeration engineer and service manager of Danforth Co., and has 20 years experience in the commercial refrigeration field.

Roycraft Buys Building

MINNEAPOLIS — The Roycraft Co., Philco distributor, has purchased the two-story building it occupies at 1625 Hennepin Ave. Interior of the building will be remodeled, and office and shop space will be enlarged.

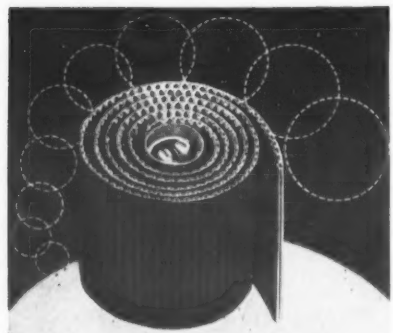
Lands Locker Contract

DALLAS, Tex.—Aire-Rite Corp. here has signed a contract for installation of Kelvinator refrigeration equipment in the 151-locker frozen food storage plant of Porter's Market, headed by J. W. Porter of Rotan, Tex.

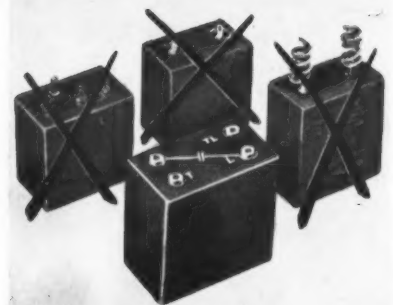
NEW

P. R. MALLORY & CO. Inc. Universal AC CAPACITORS

will reduce your inventory more than half



ANY NEEDED DIAMETER OR HEIGHT IN A MATTER OF SECONDS



ONE CAPACITOR REPLACES ALL THREE

Here's the greatest news about Motor Start Capacitors to ever hit the replacement field. Now replacements are completely simplified and your inventory investment to cover every need can be reduced as much as one-half to two-thirds. Round types MSU are all housed in the smallest diameter and shortest height metal container possible. Around each is wrapped a specially developed "size adjuster" providing a top diameter of 3" and a maximum height of 4 3/4". This corrugated adjuster is clearly calibrated for all smaller diameters and heights. You simply trim it at the desired point for a perfect fit.

Rectangular types MSG and MSF are each packed with complete hardware to cover every installation need. Mallory Universal AC Capacitors will cost you less and reduce your stock investment. Mallory's reputation in the Capacitor field is your guarantee of quality.



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P. R. MALLORY & CO. Inc.
MALLORY

McCary Heads Brunswick Field Service in Texas

DALLAS, Tex.—A. T. McCary has been appointed field service engineer for Brunswick-Balke-Collender Co. in Texas and part of New Mexico. He will supervise major installations and servicing, and the appointment of dealer-service representatives in the territory.

Headquarters of the Dallas factory branch are located at Pacific and Preston Sts. here. C. M. Wright is branch manager.

Mr. McCary is well known in Texas and Oklahoma as a service engineer, having been in this territory for the past 16 years except for a four-year period with Kelvinator in the St. Louis area.

Charles G. Groff Dies; Chairman of Servel

GREENWICH, Conn.—Charles G. Groff, 60, president and chairman of the board of Electrolux Corp., and chairman of the board of Servel, Inc., died here Oct. 24 at Greenwich Hospital after a long illness.

Born in Edgerton, Ohio, Mr. Groff began his career first as a teacher and then as a salesman for a book publishing firm.

The Air Way Electric Appliance Corp. appointed him general manager in 1922, but he later resigned the position in order to introduce his own theories of sales organization and technique in the Philadelphia territory of that company.

After his association with the Air Way firm, during which he rose to a vice presidency, he headed his own business in Philadelphia as a sales consultant.

Mr. Groff became president of Electrolux Corp. in 1933 and the following year also became chairman of the board of Servel, Inc.

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GUN COOLERS

EACH A STREAMLINED POWER PLANT OF COLD

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Peerless OF AMERICA, INC.

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ALL SIZES

DID YOU SAY Copper TUBING?

PENN BRASS & COPPER CO., INC.

ERIE, PA., U. S. A.

When Illinois Service Engineers Met at Peoria



When the Illinois Refrigeration Service Engineers Society held its state convention at Peoria last month cameraman Irving Alter of the Harry Alter Co. was on hand to get some shots of the doings.

(1) Left to right: A. L. Fait, Springfield; W. C. Metcalf, Joliet; J. J. Kline, Springfield; Al Fine, Kerotest Mfg. Co.; Lou Grauer, Detroit Lubricator Co.; Mrs. W. C. Metcalf; Harry Busby, Chicago; Earl Seaton, Rockford.

(2) Looking as prosperous as a convention of big business executives, the service engineers pay close atten-

tion to the proceedings at one of the sessions.

(3) R. C. McCarthy of Rockford, retiring president of the association, and Lawrence Millen of Aurora preside at one of the sessions. Willis Stafford of Aurora, who has taken a leading role in both state and national association affairs, stands in front of the table.

(4) And finally, the banquet. Left to right: C. L. Hartman, Rock Island, new president of the state society; Mrs. Hartman; Mrs. R. C. McCarthy; R. C. McCarthy.

Industry Relics Steal the Spotlight at Illinois State R.S.E.S. Convention

PEORIA, ILL.—Two unscheduled talks that brought to light some heretofore "undiscovered" refrigeration and air conditioning history added to the enjoyment of the 150 service engineers and their wives who attended the recent convention of the Illinois Refrigeration Service Engineers Society here last month.

A residential air conditioning system to provide comfort in the hot Illinois prairie summers, which was put under construction in 1888 and finished in 1890, was described by Roy Davidson of Dunlap, Ill., secretary of the Peoria R.S.E.S. chapter.

The installation was in a farm house near Dunlap, and started out simply as an old fanning mill located in the basement, with a wooden shaft running to the room on the first floor. This fanning

mill was operated by "handpower," through the medium of the younger members of the family in the first year of its operation.

In the second year of operation the plant was reconstructed, larger fans being utilized and an ice house constructed of stone, sawdust, and wood, in which the owner placed a large quantity of natural ice taken from a nearby pond. The ice was then placed in hoppers in front of the fan, thereby cooling the air as it passed through the ducts into the rooms.

Shafting and pulleys connected to the windmill substituted for "handpower." This worked all right except for the fact that on the hottest and driest days there was usually no wind. Thus, before the summer was over, Old Dobbin was put into

service on a treadmill to furnish power.

Later the installation was enlarged to include the whole house and a gas engine was substituted for the "horsepower." This system was in operation until a short time ago, and some of the equipment is still in place, avers Mr. Davidson.

An eight-cylinder "Isko" household refrigeration compressor was brought to the convention by R. M. Coyle of Gridley, Ill. The service engineers agreed that it "was like nothing they had ever seen." The compressor used SO₂ and was driven from a 1/4-hp. motor by two belts. There was 160 feet of 1/2-inch tubing around the compressor. A brine tank and a diaphragm type expansion valve were used on the low side of the machine.

It is planned to exhibit the machine at the National R.S.E.S. convention in January in Chicago.

William Metcalf of Joliet, Ill. won first prize in the quiz contest conducted by Harry Busby, making a perfect score. John Sachey of Galesburg, Ill. took second honors.

On the technical program William Gauger of Commercial Coil & Refrigeration Co. spoke on "Cooling Water for Bakeries and Bottling Plants," and J. R. Fleming of Mine Safety Appliances demonstrated the use of masks in refrigeration work.

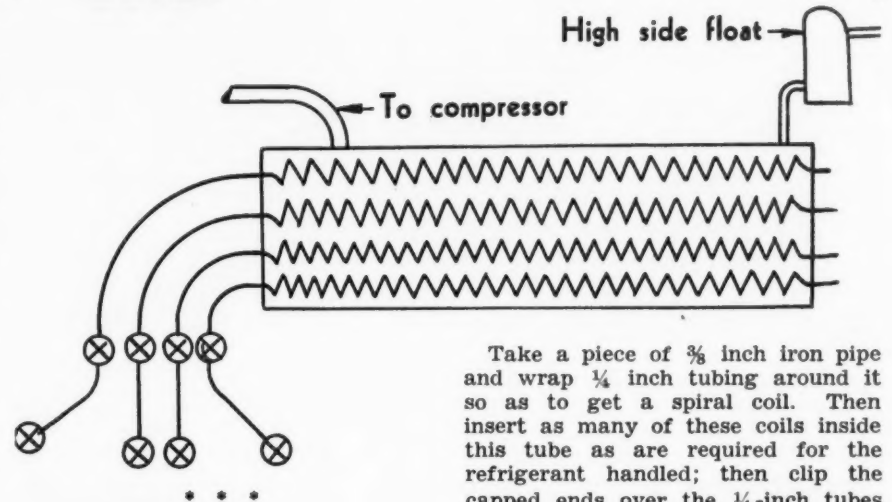
C. L. Harman of Rock Island was elected president of the Illinois R.S.E.S. for the coming year. R. M. Potter of Springfield was named first vice president; Floyd Duvall of Chicago second vice president; L. P. Millen of Aurora, secretary; A. D. McGill of Peoria, treasurer; and L. L. Sturch, Rockford, sergeant-at-arms.



E. S. Wright

Service Forum

This is one in a series of articles aimed to give the refrigeration service engineer some useful suggestions and descriptions of various service methods that can be used both in the shop and in the field.



Charging Rack

By E. S. Wright

To make an inexpensive charging rack, the service engineer needs for material only a piece of pipe steel tubing, or copper tubing from 2 to 4 inches in diameter depending on the number of coils to be inserted, and 18 or 20 inches long with regular caps on the end.

Take a piece of 3/8 inch iron pipe and wrap 1/4 inch tubing around it so as to get a spiral coil. Then insert as many of these coils inside this tube as are required for the refrigerant handled; then clip the capped ends over the 1/4-inch tubes after drilling the ends to receive same and braze or solder the whole business tight. Connect a high side float to the top of this and place on a panel mounted horizontally.

You have now made a charging system that will be inexpensive and do the work efficiently.

You do not need any receiver on the compressor and a small 1/2-hp. compressor will be large enough to handle most anything you want to do.

STURDY

Interchangeable PARTS

Make DETROIT CONTROLS a Hit!

When you use Detroit No. 450 Refrigeration Controls, you are getting the utmost in dependability and a degree of flexibility not to be found in other controls. Strong, sturdy parts that are readily interchangeable—right on the job or in your shop. All this can be done without affecting the pressure or temperature setting.

By changing the snap switch assembly, you can add an alarm circuit. Power Elements too can be interchanged or you can add the well-known "High-Pressure Cut-In" feature to the standard dual control.

There are many other things about Detroit Controls that you will find handy time-savers—large, easily-read scales, the large cover-retaining screw that you turn with your fingers and can find in the dark (you can't lose it either because

it's fastened to the cover). Then there is the mounting bracket with such an assortment of openings that you can use almost any mounting surface you run into without having to drill new holes.

Detroit Controls are available in a complete range of models for every type of application. Start taking advantage of these features.

Why not see your wholesaler about Detroit Controls right away.



DETROIT LUBRICATOR COMPANY

General Offices: DETROIT, MICHIGAN

Canadian Representatives — RAILWAY AND ENGINEERING SPECIALTIES LIMITED, Montreal, Toronto, Winnipeg
Export Representatives: Melcher, Armstrong, Deane Co., Ridgefield, New Jersey

Present and Prospective Locker Plant Operators See What's New



(1) B. G. Wiley of All-Steel-Equip talks over sales plans with Charles E. Hess, Indiana manager, as Al Schoeberlein stands by. (2) Busy as a beehive was the Master booth.



left B. H. Vollmar, Master sales manager, jots down some notes on what F. J. Zoppel of Columbus, Ohio has to say. Engaged in spirited conversation on the other side of the booth



CONDITIONING & REFRIGERATION NEWS. (3) As two "lookers" examine the Durabilt locker unit in the background, C. F. Mohr chats with G. E. Henry, the company's representative



in Columbus, Ohio. (4) E. R. Pomeroy, who has installed a plant in his furniture store at Crosswell, Mich., thinks over some advice offered by E. E. Jackson, Midwest sales manager.



(1) J. N. Golten of Stewart-Warner and Philip F. Levin of Polar Hardware Co. find the Stewart-Warner booth a good place for discussion.



(2) H. H. Van Horn and A. M. Reilly of Burge Ice Machine Co., Detroit outlet for Baker equipment, listen as Roger Sprague of Baker's home office



explains a technical point. (3) Jim Smith of the News drops in to say "howdy" to S. H. Ellison, manager of Carrier's refrigeration sales. (4) Jack



Armstrong, Dole sales engineer from Ft. Wayne, Ind., stands in the background talking to H. W. Kleist (back to camera), the company's chief engineer; in the foreground C. H. Boyd, Dole's Atlanta representative, listens to H. J. Schwartz, General Refrigeration division, Yates-American Corp.

SERVEL Silver Fleet

Smooth and silent as a sailboat, Servel's "Silver Fleet" refrigerating machines offer you a standard of operating efficiency that is 3 to 5 years ahead of the field. Ask for the new 72-page catalog, Servel, Inc., Electric Refrigeration and Air Conditioning Division, Evansville, Ind.

NO HUM-M-M-M!
NO CHATTER!
NO SQUEE-E-K!

... We've designed the chatter out of SUPERIOR check valves ... you can definitely bank on that!

... Opens and closes tightly below six ounces pressure ... Minimum of pressure drop ... All internal parts removable for soldering lines to valves, or for future inspection of parts, without removing valve from line.

TRULY-A SUPERIOR CHECK VALVE

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—Buy From Your Jobber—

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For back issues of
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We offer a binder designed and made especially for keeping your file copies of Air Conditioning & Refrigeration News neat and always available for ready reference.

It is made of stiff board covers, attractively bound in good quality of black imitation leather. The name Air Conditioning & Refrigeration News is stamped in gold on the front cover and backbone.

The price is \$3.75 shipped to you postpaid in the United States and Possessions and Pan-American Postal Union countries. For all Foreign countries postage based on a shipping weight of 6 pounds must be added to this price. Send your remittance with order. May we send you one?

Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

McQuay Eliminates Need For Freezer Room With Combination Zero-Pak Unit

MINNEAPOLIS — Combining in one cabinet the necessary heavy-duty low-temperature fin coil for refrigerating the locker room itself in addition to quick freezing the product load, the new McQuay model X Zero-Pak unit is said to eliminate any need for the separate (and costly) quick-freezing room which heretofore has been incorporated into practically all locker plants.

This new unit, actually a combination sharp-freezer and locker room cooler, was displayed by McQuay, Inc. at its booth at the recent locker convention and show in Chicago.

The unit consists of expansion valve, heat exchanger, coil, water defroster, motor, and blower, all housed in a galvanized steel cabinet finished in white and gray baked-on enamel. A turret-type grille mounted on top of the cabinet may be adjusted to deliver the air stream in any desired direction.

SHARP-FREEZE FACILITIES

The sharp-freeze compartment contains eight tinned product baskets with a capacity load of about 400 lbs. These baskets are suspended in the cabinet without the use of shelves, so air can circulate around all sides of the product.

Air from the locker room is drawn by the blower from the inlet through the below-zero coil and is passed over the products at high velocity. This same air then circulates through the locker room to maintain proper temperature there.

The model X Zero-Pak may be

used in multiple, if desired. Just as one unit balances with a 1½-hp. compressor, so two units will match a 3-hp. compressor, etc. These selections are based on water-cooled compressors, on an entering air condition of 5° F., and on an average refrigerant temperature of -5° F.

DEFROSTING IS SIMPLE

Defrosting is simply and speedily accomplished, it is claimed. It is said to be only necessary to close the liquid refrigerant valve, turn off the blower switch, and close the defrosting panel at the air inlet to the unit. The three-way water valve is then opened and the defrosting attachment washes all ice and frost from the coils in 10 minutes.

A locker room thermostat and combination manual and automatic control switch are available at a net price of \$10. Motor in the model X unit is of heavy-duty belt-drive type. Fan is of multiblade, double inlet, double width type.

Model X units for use with ammonia refrigerant are available at 5% over the regular list price.

To emphasize the fact that the model X does away with the orthodox quick-freeze room, one of the promotion folders for this new unit shows a blueprint of a typical plant with McQuay equipment installed. Attached to this blueprint by a fold is a smaller blueprint of a quick-freeze room. Legend on this second diagram reads: "This may be detached and discarded if the Zero-Pak system is used."

Improved Styling Marks New McGrew Lockers

LINCOLN, Neb.—Improved styling featuring a distinctively channeled front is one of the most noticeable characteristics of the new Sanilok locker being promoted by McGrew Machine Co. here.

This new locker unit was on display in the McGrew booth at the recent national locker convention.

The "patron appeal" said to be

created by this simple, modernly designed front is claimed as one of the most important features of this new locker.

Unitary construction and ease of installation are also high on the list of advertised features.

Door lockers are equipped with rubber bumpers to protect the finish and afford silent closing.



WHEEL PULLER

A simple, efficient tool for hard pulling jobs such as flywheels, fans and pulleys—universal for all make refrigerators. Rotating arms grip in any position—internal or external pulley—odd and even spokes wheels. Hex head power screw has knurled band for easy hand turning. Made of special steel, hardened and tempered. Fully guaranteed. Sold by mill supply and refrigeration jobbers.

J. H. WILLIAMS & CO.
225 Lafayette St., New York, N. Y.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS
REFRIGERATION TOOLS

From 1/4 to
25 TONS
of refrigeration

Brunner Refrigerating and Air Conditioning equipment comprises air and water cooled condensing units for practically all types of commercial applications up to and including 25 tons of refrigeration... Catalog promptly on request. Brunner Manufacturing Co., Utica, N. Y., U. S. A.



FOR YEARS THE SYMBOL OF QUALITY

Equipment Exhibits Arouse Serious Interest At Chicago Convention



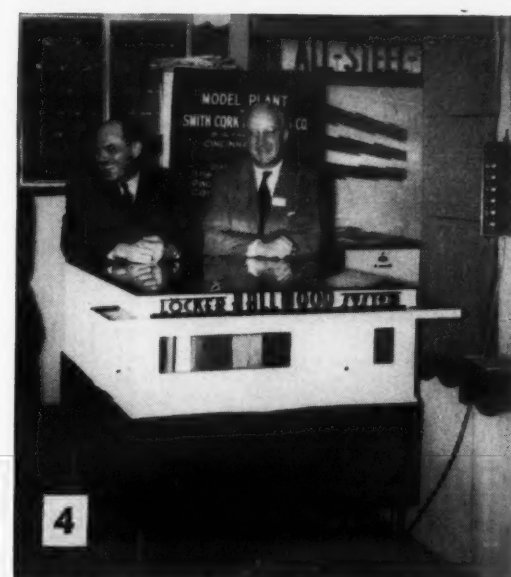
(1) J. S. Herring (seated) of Knickerbocker listens thoughtfully to R. B. Breneman, Armstrong Cork representative in Columbus, Ohio.



(2) Jeff R. Reid, McQuay man in Des Moines, Iowa; Bill Wright (back to camera) of Strathroy, Ontario; R. C. Coleman, McQuay's vice president and sales manager; and J. W. Bassett of McQuay's Detroit organization hold a round-robin discussion.



(3) W. W. Wilson, president of Master Refrigerated Locker Systems, Inc., looks over one of his company's new "divided" lockers.



(4) N. A. Hallwood (right), inventor of the Hallwood locker system, and C. H. Smith of Smith Cork Sales Co., Cincinnati firm which installed the first Hallwood plant, stand back of a display model.



(1) L. R. Newell of Deepfreeze and B. R. Davidson, sales manager of Allied Store Utili-



(2) M. L. Garlock (back to camera) of Garlock Sales Co., Lansing, Mich. and H. F. Smith, Armstrong agent in Des Moines, lean on a model of the company's Polar Wheel locker



(3) V. R. Despard, Jr. of Armstrong's home office, talks over insulation problems with H. R. Schneider of Cross Road Locker Co., Rochester, Minn.



(4) Leonard Gengler, locker operator and Connor representative in Caledonia, Minn., chats with Dell Rhea of the Chicago Association of Commerce.

New Locker Service

OAKLAND, Calif.—L. F. Noonan has formed a company known as Quick Freezing & Locker Equipment Co. here to handle a complete line of refrigerating equipment and to maintain an advisory and promotional service department for the benefit of present and prospective locker plant operators.

★★★★★★★★



Mills Condensing Units
By Mills Novelty Company
4100 Fullerton Ave., Chicago, Ill.

★★★★★★★★

Locker Operator Uses Posters With Seasonal Slogans For Promotion of Volume Storage

HUNTINGTON, Ind.—Timely slogans executed on attractive posters by his daughter, Jane, have done much toward building up the locker storage business operated by Fred Shutt as part of the country packing plant which he maintains about a mile outside the city limits of Huntington.

By this sort of constant but seasonal promotion, Mr. Shutt has sold his customers on the idea of making broader use of their locker facilities, thus increasing the plant's revenue from locker rentals and processing charges.

Efficacy of this system is attested to by the fact that he started out in 1937 with only 15 lockers, but now has 180 lockers which he manages to keep well filled the year around at rentals of \$1.25 a month or \$8 to \$10 a year.

One of the standing sales slogans at the Shutt plant, "Fryers All Winter," is aimed at promoting the sale of one of the plant's specialties—young chickens for frying. The successful promotion of this single item, Mr. Shutt reports, has done much to popularize the entire locker service.

Other posters bear similar slogans advocating the frozen storage of all sorts of seasonal products. Storage of fruits and vegetables as well as of meats is actively encouraged, and many patrons of the plant now rent two lockers—one for meat and one for other produce.

Operating a combined packing house and locker plant gives Mr. Shutt's customers the advantage of being able to buy a hog or a beef on the hoof at the plant, and of then having it custom butchered by Mr. Shutt according to their directions, wrapped, labeled, and placed in their lockers.

This butchering and processing service also has made it possible for Mr. Shutt to conduct a profitable wholesale meat business catering to small retail outlets which can only buy small quantities of meat at one time. Mr. Shutt encourages such retailers to rent lockers and to send in daily for their requirements.

Always on the alert for new ways of servicing his trade and adding to his profits at the same time, Mr. Shutt has installed a small but carefully selected stock of groceries in his waiting room. He also has established a retail meat trade.

CLEAN COILS!



Completely automatic defrosting—that's one of the features of this amazing control that makes a big hit with every food merchant. Clean coils at all times—not only in the Walk-in Cooler but in the butter box and display cases whose contents are safeguarded by this revolutionary control.

Better quality foods—with the big trimming losses a thing of the past. Push 91G2—for bigger sales and better business friendships!

Ask your jobber.

RANCO Inc.

Columbus, Ohio, U.S.A.

RANCO Type 91G2—The Worlds' Outstanding Commercial Control!



OPEN for Business

The Crispeteria is open OPEN for compelling, attention-getting display of produce. OPEN for customers loaded down with purchases, who can't open bulky doors. OPEN for easy handling and selection. . . OPEN FOR BUSINESS! OPEN so that grocers are eager to install one. OPEN a new field for profits by selling the Crispeteria.

KOCH REFRIGERATORS

NORTH KANSAS CITY, MO.

Write today for details and open territories.



No. 614

AMINCO

WATER REGULATING VALVE

(Pressure Controlled)


Aminco No. 614 Water Valve is used to regulate the amount of water passing through water-cooled condensers. The valve is quiet in operation, free from chattering; practically friction-free and provides a maximum flow of water with a minimum head pressure differential.

Aminco Water Valves have a double bellows seal, removable body seat and will operate on all refrigerants except ammonia. Standard connections 3/8" x 3/8" F. P. T. Send for Bulletin No. 15.

AMERICAN INJECTOR COMPANY

1481 FOURTEENTH AVENUE, DETROIT, MICH.

Pacific Coast: Van D. Clothier, 1015 E. 16th, Los Angeles, Calif.
Export: Borg-Warner International Corp., 310 S. Michigan Ave., Chicago



Dayton
V-BELTS

Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slippage. A nearby distributor carries a complete stock for appliances and machines.

THE DAYTON RUBBER MFG. CO., DAYTON, OHIO
World's Largest Manufacturer of V-Belts



Dealers Wanted for Midwestern and Southern States

CAMPBELL REFRIGERATOR CO.
Milwaukee, Wis.

Specify PENN
Automatic Controls and Switches For Recognized Reliability

Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

FAMOUS
for their performance
ROTARY SEAL UNITS

Rotary Seal Co., Chicago, Ill.

HENRY BALANCED-ACTION
DIAPHRAGM PACKLESS VALVES

Non-Directional... Inlet and outlet lines because of Balanced-Action may be connected to either port.

RECOMMENDED AND SOLD BY LEADING JOBBERS

HENRY VALVE COMPANY
1001-19 N. SPAULDING AVE.
CHICAGO, ILL.

Chieftain

Triple inspection: 1. At the machine
2. On the completed part
3. In selective fitting

Assures perfect assembly

TECUMSEH PRODUCTS CO., TECUMSEH, MICH.
Canadian distributor: Refrigeration Supplies Co., Ltd., London, Ontario

WEBER presents the MASTER-VALUE LINE

GREATEST LINE IN AMERICA
ESTABLISHED 1898

Webster also manufactures a complete line of soda fountain equipment on which profitable sales franchises are available.

Cash in on Weber's popular priced, long-profit line of Commercial Refrigerator Display Cases and Reach-In Cabinets. Write today for complete information. It's money in your pocket.

WEBER SHOWCASE AND FIXTURE COMPANY, INC.
5700 AVALON BOULEVARD, LOS ANGELES, CALIFORNIA

WEBER SHOWCASE AND FIXTURE COMPANY, INC.
5700 AVALON BOULEVARD, LOS ANGELES, CALIFORNIA

THE DAIRY CASE THAT TOPS THEM ALL

"EYE LEVEL" DISPLAY BOOSTS SALES. PERFECT REFRIGERATION ENDS SPOILAGE.

ALSO AVAILABLE WITH NON-REFRIGERATED OPEN BOTTOM, WITH WIRE BASKETS.

IDEAL FOR DAIRY, PRODUCE, AND ALL OTHER PERISHABLES.

A BIG DEMAND FOR THIS ITEM. A REAL PROFIT FOR YOU IN EVERY SALE.

INQUIRE TODAY!

MODEL 6000

FOGEL REFRIGERATOR COMPANY Since 1899
16th & Vine Sts., Phila., Pa.

QUICK SERVICE

Complete
stocks of REFRIGERATION and AIR CONDITIONING SUPPLIES and EQUIPMENT

LOW PRICES

THE HARRY ALTER CO.
1728 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS
3 CHICAGO BRANCHES: NORTH, WEST, SOUTH

NEW YORK
BROOKLYN
JAMAICA

NEWARK
DETROIT
CLEVELAND
ST. LOUIS

York Will Save Jobs For All Employees In U. S. Service

YORK, Pa.—All employees of York Ice Machinery Corp. who are drafted, called into service as reserve officers or National Guard members, or who volunteer for military service, were promised leave of absence, compensation allowance, and continued company group insurance in a letter sent them by Stewart E. Lauer, president.

The company will reinstate all employees called into military service, Mr. Lauer said, provided they are honorably discharged and apply for reinstatement within 40 days from the date of such discharge. Reinstatement will be made to former or equivalent positions, at the basic rates of pay then applicable.

York workers entering the service will be paid one month's salary, in 12 equal monthly instalments, to supplement their government pay, provided they have been with the company for one year or more of continuous service. Group life insurance, as well as accidental death and dismemberment coverage, will be continued for those employees who now have such protection, on the same basis as though they were regularly employed.

Eight hundred York employees registered for the draft.

Service Instructions on Counter-Type Freezers Refrigerated With Brine

Heat Interchangers -- Suction Line Sizes By Sizes of Units & Length of Run -- Final Check

By Arch Black and Dean C. Seitz

Editor's Note: This instalment in the series of articles on servicing of counter freezers and other types of low temperature equipment used by retailers is part of a section dealing with service instructions on specific types of counter freezers.

LUBRICATION OF FREEZERS

Lubrication should be checked after making 1,000 to 1,500 gallons of cream, or at least every two months. By referring to Fig. 9 (Oct. 30 issue) it will be noted that lubrication points are indicated.

Check the grease and oil at the points of lubrication as shown in Fig. 9, being sure to check freezer bearing, the brine pump bearing, and the bearing on the compressor motor. Where grease cups are installed, the Russ Mfg. Co. recommends the use of No. 1 Star grease made by the Texas Co. or its equivalent, and for a soft oil lubrication it is recommended that any good grade of automobile oil be used.

HEAT INTERCHANGERS

On account of the extremely low temperature maintained in the hardening cabinet it is impossible to tell whether or not the expansion valve is set correctly unless some sort of a heat interchanger is made. Even with a dry gas coming from the cabinet a fairly good frost line will show for a good distance from the cabinet if a heat interchanger is not in the system. Therefore, it is strongly recommended that heat interchangers be used.

The liquid and suction lines can be strapped tight together to form a partial interchanger. However, it is recommended that a heat interchanger be used, which can be purchased complete from manufacturers.

REMOTE INSTALLATION

It is recommended that where the compressor is remotely installed that the liquid and suction lines should be soldered together at least 15 feet to make a partial heat interchanger and that all connections on the suction line should be sweat fittings.

The liquid line is $\frac{3}{8}$ inch, and the suction line from the cabinet coil is $\frac{1}{4}$ -inch O.D. actual dimension. At this point the fitting should be sweated so as to obtain the actual size necessary for the size compressor and the kind of refrigerant to be used, as per Table 1.

Total amount of refrigerant necessary will be approximately 25 lbs. of "Freon-12" or 17 lbs. of methyl chloride to operate the system on the average run of suction line which usually is less than 30 feet.

Table 1—Hard Drawn Tubing For Suction Lines For "Freon-12"

1 hp.	$\frac{3}{8}$ inch O.D. actual—less than 50 feet.
1 hp.	$1\frac{1}{8}$ inch O.D. actual—over 50 feet, less than 100 feet
$1\frac{1}{2}$ hp.	$1\frac{1}{8}$ inch O.D. actual—less than 50 feet.
$1\frac{1}{2}$ hp.	$1\frac{1}{8}$ inch O.D. actual—over 50 feet, less than 100 feet.
2 hp.	$1\frac{1}{8}$ inch O.D. actual—less than 30 feet.
2 hp.	$1\frac{1}{8}$ inch O.D. actual—over 30 feet, less than 100 feet.
3 hp.	$1\frac{1}{8}$ inch O.D. actual—less than 60 feet.

For Methyl Chloride

1 hp.	$\frac{3}{8}$ inch O.D. actual—less than 60 feet.
1 hp.	$\frac{3}{8}$ inch O.D. actual—over 60 feet, less than 125 feet.
$1\frac{1}{2}$ hp.	$\frac{3}{8}$ inch O.D. actual—less than 60 feet.
$1\frac{1}{2}$ hp.	$1\frac{1}{8}$ inch O.D. actual—over 60 feet, less than 150 feet.
2 hp.	$\frac{3}{8}$ inch O.D. actual—less than 20 feet.
2 hp.	$1\frac{1}{8}$ inch O.D. actual—over 20 feet, less than 100 feet.
3 hp.	$1\frac{1}{8}$ inch O.D. actual—less than 75 feet.

Table 2—Head Pressure For "Freon-12" Water Cooled Units

Average Suction Pressure, Gauge	Ingoing Water Temperature 60° F.	70° F.	80° F.	90° F.	100° F.
$2\frac{1}{2}$ —7 lbs.	105 lbs.	115 lbs.	125 lbs.	140 lbs.	160 lbs.
1 inch—2 lbs.	95 lbs.	105 lbs.	115 lbs.	125 lbs.	145 lbs.
5 inches—2 inches	90 lbs.	100 lbs.	110 lbs.	120 lbs.	140 lbs.

New Device To Control 'Effective Temperature' Has Constant Variation

BALTIMORE—An improved instrument for the control of effective temperature has been announced by Julien P. Friez & Sons here. Known as the "Comfortrol," the device is actually a humidity compensated thermostat incorporating a multiple human hair element coupled to a bimetallic temperature element in such a way that the point of dry bulb control is constantly and automatically varied to suit the existing relative humidity.

The control is adaptable to homes, theaters, hotels, schools, offices, and on other applications where control in terms of body sensitivity is necessary or desirable.

USE McQUAY COILS
WITH THE HIGH CONDUCTIVITY "FRICTION-GRIP" BOND

McQuay Inc.
MINNEAPOLIS, MINN.

ASE Provide Extra Profits
Frozen Food Lockers
Sure Repeat Orders
Sold Only Through Dealers

ALL-STEEL-EQUIP COMPANY, INC.
111 Kensington Avenue • Aurora, Illinois

Use CHICAGO SEALS
for seal replacements
A complete line in all sizes

CHICAGO SEAL CO.
20 North Wacker Dr., Chicago

UNICON "The Logical Trend in Air-Cooled Condensers"

KRAMER-TRENTON CO.
TRENTON, N. J.

GALE COMPRESSORS

Single and twin cylinder units. Engineered and manufactured to highest standards. Write for literature.

GALE PRODUCTS
1635 Monmouth, Galesburg, Ill.

LET US SOLVE YOUR COIL PROBLEMS

MARLO COIL COMPANY
SAINT LOUIS, MISSOURI

Filtrine
WATER COOLERS—FILTERS to comply with U. S. NAVY—ARMY Specifications

Filtrine Mfg. Co., Brooklyn, N. Y.

ALCO Specify **ALCO** Engineered Refrigerant Controls for Maximum Performance

ALCO VALVE CO. ST. LOUIS, MO.

HyDroLoc Individual Lockers
have the call. Many unusual advantages not found in others.

Sold only thru distributors of refrigeration and insulation.

Get our proposition

Master Refrigerated Locker Systems, Inc.
121 Main St. Sioux City, Iowa

COMMERCIAL REFRIGERATORS
World's most complete line of commercial cabinets—73 to 84 cu. ft. capacity

MIDWEST MFG. COMPANY • GALESBURG, ILL.

For Information on Motors FOR ALL TYPES OF Air Conditioning and Refrigeration Equipment

WRITE TO

Wagner Electric Corporation
ST. LOUIS, MO.

Sprague Sees Need For Locker Plants In Defense Plan

(Concluded from Page 1, Column 4) coordinate into the country's national defense setup a studied program that would assure to the nation an adequate and wholesome supply of all foodstuffs through the development and utilization of all the potential facilities of the locker storage industry.

Such a body, he asserts, would, under federal indorsement, inculcate stability in production, distributing, and marketing values which would in turn do much to bolster American morale.

Says Mr. Sprague: "Surely today we are simulating wartime conditions, and an upward trend in consumer prices now prevails, particu-

larly in meats and perishable foods. It is not an alarmist view to urge that a portion of our national defense activity and expenditures be assigned so as to assure an adequate food supply and stabilization of normal price levels, especially embracing all perishable food products.

"The bulwark of our perishable food supply centers around the meat packing industry, creameries, and fruit and vegetable processors. The productive supply is ample. The facilities to process, manufacture, or handle the supply are ample for normal peacetime needs, but the present public cold storage warehouse space is insufficient to supply fresh or frozen foods that will insure normal distribution and consumption during a national crisis.

"It is logical, therefore, to urge that the more than 3,000 frozen food locker storage plants now existing in the United States be pressed into service as a 'second line' of food defense.

"The existing chain of such plants is equipped to process, freeze, and store for future consumption every class of perishable food now handled by the larger commercial plants. Probably over 70% of the existing locker plants can triple their present processing and freezing capacity without any increase or change in present equipment.

"Most of these plants, however, would require additional bulk storage space to hold a wartime reserve supply that would satisfy the needs of the communities they now serve. In nearly every instance this reserve space could be added without interruption of present service and without loss of existing equipment. The majority of locker plants are designed with a view to expansion, and could be enlarged at less cost than that required for construction of a centralized commercial plant.

"The existing plants are but one fourth of what may be economically supported throughout the country before the saturation point is reached. Thus there is a potential possibility of more than 9,000 frozen food locker storage plants providing for the normal perishable food requirements of several million people during a national emergency.

"It is the smaller hamlets, villages, and towns that suffer most, due to lack of distribution facilities, during any food restriction period such as that experienced during the first World War. The locker industry needs only national indorsement and cooperation within its own ranks to assure to many thousands of families an uninterrupted dietary balance during any national crisis.

"Hard-pressed England has realized the value of decentralizing its food manufacturing and supply plants, and has scattered its production and storage facilities throughout the island in an attempt to avoid a shortage of vital foods as a result of mass destruction.

"We may well take a lesson from this example. The bulk of our vital food supply plants is concentrated within thickly populated areas. Outlying plants are insufficient to fill the gap, should more than one of the larger centers be demolished. Should a lone bomber penetrate our lengthy coast line and attack a centralized food center, that area would be faced with a serious shortage problem unless there were adequate neighboring reserves.

"Our safety, then, lies in the availability of numerous small plants, such as our present frozen food locker storage units."

Percival Moving To New Plant In Boone, Ia.

(Concluded from Page 1, Column 3) building operations have been completed. Boone is 40 miles northwest of Des Moines.

New headquarters building, located on the main line of the C. & N. W. Railway and immediately north of U. S. Highway 30, will be of modern steel, brick, and tile, one-story with monitor top construction. Plant layout will permit production-line manufacture of display, reach-in, and walk-in equipment. A display room will occupy the first floor west end of the building, with office quarters located directly above.

Present office staff, together with approximately 40 skilled factory men, will be moved here when the new location is taken over. The company will continue a display room, as well as the refrigeration accessories and butcher supplies departments, in a part of the building it now occupies in Des Moines.

U. S. Commercial Sales Up In September

(Concluded from Page 1, Column 2)

year, commercial refrigeration shipments amounted to \$20,108,412, the Nema report shows. Playing a major part in this volume were commercial condensing units, with a world shipment total of 95,276 and an estimated volume of \$7,522,413; beverage coolers, with 43,577 units worth \$4,087,226; ice cream cabinets, with 30,883 units valued at \$4,866,807; and pressure water coolers, with 18,383 units valued at \$1,836,023.

Dollar volume of commercial shipments for September was above the 1939 figure in all except the foreign classification.

Comparative unit volume of world shipments of the leading packaged equipment and condensing units for 1940 and 1939 is shown in the following tabulation:

	1940	1939
Bottle Water Coolers.....	136	269
Pressure Water Coolers....	1,313	1,331
Ice Cream Cabinets.....	1,533	1,290
Bottle Beverage Coolers....	2,240	1,814
Condensing Units	7,730	6,655

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, \$2.00, additional words, four cents each. Three consecutive insertions, \$5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

DISTRICT MANAGER for national manufacturer of radios and refrigerators covering Southeast, with headquarters in Atlanta contemplates change. Will consider factory connection appliances or allied line. Box 1274. Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

SEND FOR PRICES and literature on the General 1940 all streamlined refrigerator display case line. Over 40 years experience manufacturing good commercial refrigerators. On a comparative price test with other makes of equal specifications, prices are lowest in the country. GENERAL REFRIGERATOR & STORE FIXTURE CO., 5th & Bainbridge Sts., Philadelphia, Pa.

EQUIPMENT FOR SALE

CROSBY CLOSOUT of 519 brand new 6 cubic ft. Shelvador, kerosene refrigerators in original crates. Manufacturers list \$189.50. Will sacrifice large or small lots at prices way below factory cost. Write or wire for specification sheets, price lists. FLAM O FREEZE SALES CO., 340 West 34th St., New York, N. Y.

BRAND NEW Westinghouse 1 to 2 ton Low-Sides available, complete with Walnut, Mahogany or Modern cabinets, filter, coils, fans, valves, etc. Simple to install, satisfactory in operation. Sold to you in original Westinghouse crates—\$32.50 each. Also brand new 1/2 H.P. and 1 H.P. complete G-E units and full line "As Is" or Rebuilt Commercial units from 1/4 H.P. to 3 H.P. "As is" 1/4 H.P. units complete with motors as low as \$5.00. Write ASSOCIATED REFRIGERATOR PLANT, INC., 3028 West Hunting Park Avenue, Philadelphia, Pa.

REPAIR SERVICE

FREE HERMETIC CATALOG complete with prices on refrigerator units, rebuilding and exchange service. General Electric, Westinghouse, Majestic, Frigidaire and a complete stock of Grunow compressors and parts. Immediate shipment. For your copy specify catalog A. SERVICE PARTS COMPANY, 1101-3 North 24th Avenue, Melrose Park, Illinois.

CONTROL REPAIR Service. Domestic controls reconditioned equal to new at a small cost. All work guaranteed for one year. Prices upon request. UNITED SPEEDOMETER REPAIR CO., INC., 342 West 70th Street, New York City.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

New Fall Prices on Parts Rebuilding or Exchange

Automatic Expansion Valves....\$ 1.25
Thermostatic Expansion Valves... 2.75
Domestic Cold Controls..... 1.75
Commercial Controls
(Temperature or Pressure).... 2.00
Commercial Controls (Dual).... 2.50
1/2 H.P. Water Cooled Condensers 7.50
1 H.P. Water Cooled Condensers 12.50
(New Finned Tube used in all condensers)
Automatic Pressure Water Valves 2.00
(Replaceable seats installed in all valves 6 Months Guarantee)

Refrigeration Supply Jobbers
2521 N. PULASKI ROAD
CHICAGO, ILLINOIS.

American Countries Are Large Buyers Of Refrigerators

(Concluded from Page 1, Column 2)

totalled 6,193 units valued at \$488,304 during September, compared to 10,580 units valued at \$850,097 last year and 6,969 units worth \$569,862 in August of this year. Commercial refrigerator shipments amounted to 774 units valued at \$95,941, compared to 838 units valued at \$105,645 last September. Refrigerator parts exports were valued at \$267,316, against \$306,725 in 1939.

Latin American countries figured importantly in the September exports list, no less than 10 nations from this region being included in those purchasing \$10,000 or more of household refrigerators during the month, and an equal number purchasing more than \$2,500 of refrigerator parts.

Brazil led in the household refrigerator field, with purchases of 799 units valued at \$61,720. Canada, although purchasing more units, was behind Brazil in volume with \$51,921. Following closely were Mexico, with \$51,604, and \$51,441.

Canada led in commercial refrigerator imports from this country, with 205 units valued at \$21,537. Cuba was second, with \$14,063, and Venezuela third, with \$10,324. Canada also paced refrigerator parts purchasers, with \$108,422.

KERO TEST

Valves and Fittings

The Standard of the Industry

Kerotest Manufacturing Co.
Pittsburgh, Pa.

Hardy-MAYFLOWER

commercial compressors

are Efficient, Sturdy and Reliable

Hardy Manufacturing Co., Inc.
126 Davis Ave., Dayton, Ohio.

SPORLAN VALVES

BUNDY TUBING

DETROIT

You can SPEED UP your flaring!



The new Imperial Flaring Tool with slip-on yoke, provides ease and speed of operation never before attained in a flaring tool. The yoke is made so that it can be slipped on over the bar without twisting or turning. The inside edges of the yoke are slotted so that once in position a slight turn holds it in place on the bar. Yokes are made of forged steel. An additional advantage of this tool is the construction of the bottom of the yoke, which permits flares to be made where there is little space between nut and the end of tubing. Flare tubing sometimes offers this problem. Flares soft copper, brass or aluminum tubing. No. 195-F Imperial Flaring Tool, flares 1/4", 3/8", 1/2", 5/8" and 3/4" O. D. tubing. Price each \$4.25. Also available for all other sizes of tubing.

THE IMPERIAL BRASS MFG. CO., 565 S. Racine Ave., Chicago, Ill.

IMPERIAL

VALVES • FITTINGS • TOOLS
CHARGING LINES • FLOATS
STRAINERS • DEHYDRATORS

ORDER FROM YOUR JOBBER

THE SIGN OF FAST SELLING COMMERCIAL REFRIGERATORS

QUALITY has made SHERER'S name a by-word with commercial dealers. A complete line of sure-fire leaders, plus whole-hearted factory co-operation, demands investigation as a profitmaker for you.

Write for dealer plan

SHERER-GILLET CO., MARSHALL, MICHIGAN

SHERER

DISPLAY AND STORAGE EQUIPMENT FOR RETAIL FOOD STORES

SHERER-GILLET CO.
MARSHALL, MICHIGAN

Fan Blades and Blower Wheels



THE TORRINGTON MANUFACTURING CO. of TORRINGTON, CONNECTICUT

Refrigeration Products

Keep You on Top of Competition. Efficiency and customer satisfaction built into every item.

Patented CROSS-FIN COILS . . . Bare Tube Coils . . . Humi-Temp Forced Convection Units . . . Instantaneous Water Coolers . . . Steel and Copper Vacuum Plate Coils . . . Disseminator Pans . . . Heat Exchangers.

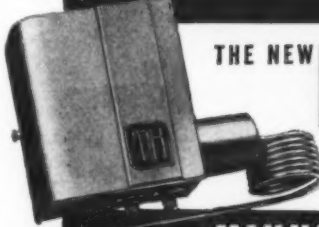
See your jobber or write today

LARKIN COILS, INC., 519 Memorial Drive, S. E., Atlanta, Ga.

Originators of The Cross Fin Coil

A SINGLE CONTROL Universal in Application

THE NEW POLARTRON



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VIRGINIA SMELTING COMPANY
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Ideal Beer Cooler Co.
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Anaconda Copper Refrigeration Tubes

Coils unroll surprisingly straight



THE AMERICAN BRASS CO.
FRENCH SMALL TUBE BRANCH
Germantown, Pa.

Kelvin Kitchen Klassmates



Steele R. Sellers, Kelvinator range sales chief, demonstrates the fine points of broiling a steak to District Managers Jim O'Neil, Lee Stratton, F. N. Pattison, and Paul Lewis. It was a special class for field men.



Trying to out-expert the experts in the fine art of biscuit-making are Don Rulo, laundry equipment sales manager; H. T. Tasker, district manager; Frank Pierce, general sales manager; Ed Barnes, district manager.

Program Announced For ASRE Meeting

(Concluded from Page 1, Column 3) business, the newest designs in locker plant equipment, and the potential market for such service in the eastern states. Persons interested in these problems, whether or not they are A.S.R.E. members, are invited to attend these conferences and participate in discussions following the talks by scheduled speakers.

A smoker-cocktail party will be given at the close of the first day, in honor of new members and the officers of the new Richmond, Pittsburgh, Cincinnati, Cleveland, and Kansas City sections.

An inspection trip to North Beach Airport and La Guardia field is scheduled for the second afternoon of the convention, Dec. 4. Annual society dinner-dance will be given that evening in the Commodore.

Technical program follows:

TUESDAY, DEC. 3

10 a.m.—West Ballroom.

"Frozen Food Containers," Dr.

Mary E. Pennington, consulting engineer.

"Refrigeration in the Colleges," Prof. B. H. Jennings, Northwestern University.

"Freezing of Meats," K. F. Warner, U. S. Department of Agriculture. Reports of A.S.R.E. technical committees: education—F. C. Stewart; physics—Dr. A. W. Ewell; biology—B. E. Proctor; beverage cooling—L. H. Roller; food processing and refrigeration—Nels Rosberg; agricultural products refrigeration—D. F. Fisher.

2:30 p.m.—Conference on air conditioning operation, West Ballroom. Chairman, L. L. Lewis, vice president, A.S.R.E.

Informal talks by A. S. Henry, Radio-Keith-Orpheum Corp.; L. E. Kelley, Tiffany & Co.; C. W. Walton, Jr., Rockefeller Center, Inc.; Dr. John Parsons, A. C. Buensod.

2:30 p.m.—Conference on locker plants, Parlor A. Chairman, L. S. Morse, past president, A.S.R.E.

Informal talks by Danner Bierhaus, Emil Steinhorst & Sons; Paul Christensen, Merchants Refrigerating Co.; Mrs. H. B. Pownall, locker plant manager; a representative of the Armstrong Cork Co.; and others.

WEDNESDAY, DEC. 4

10 a.m.—West Ballroom.

"Personnel Problems in the Defense Program," T. A. Armstrong, Westinghouse Electric & Mfg. Co.

"Aluminum in Refrigerating Equipment," Robert B. Mears, Aluminum Co. of America.

"Vibration Isolation," J. G. Aldinger and E. T. P. Neubauer, York Ice Machinery Corp.

THURSDAY, DEC. 5

10 a.m.—West Ballroom.

"Silver Brazing Alloys in the Household Refrigeration Field," Leo Edelson, Handy & Harman.

"Heat Interchangers," by David Crampton, Wallace & Tiernan Co.

"High Humidity in Commercial Refrigerators," A. R. Dennington, Westinghouse Lamp Division.

"Status of Safety Laws in Various Parts of the U. S.," C. F. Brooks, National Electrical Manufacturers Association.

Pointed Dramas Help Washington League Sell Its Promotional Plans To Salesmen

(Concluded from Page 1, Column 5) event at which the "outstanding range salesman" was to be announced. In the middle of the program, someone rushed in to announce that the "outstanding salesman" had just met his death on the way to the meeting. Before any real shock could be registered, the curtains parted to show "Heaven—Salesmen's Entrance," and the hero, "Sam Signemup," limping up to the gates.

Recorded harp music made atmosphere while Sam knocked and demanded entrance. "St. Peter" appeared and asked the salesman to verify the rather startling statements which the recording angel had in his book. He must prove that what he was saying to women about electric ranges and kitchens was true. Sam not only proved his points, but even tried to interest St. Peter in the idea of heating Hell by electricity, so the smoke wouldn't get on the clouds. He thought he had made a sale, but St. Peter came back from a conference to announce that "Electricity was too good for the Devil—Let him use Flame."

However, the salesman was admitted to Heaven, because he told the truth, and because "anyone who sold electrical appliances was making life easier and doing good."

Most recent dramatic offering was an adaptation of the "Alice in Electric Wonderland" playlet of the Modern Kitchen Bureau's range promotion program. The institute version of

"Alice" was presented at the meeting of range salesmen at which the fall campaign tie-in with the national theme was introduced. To fit into a sales meeting, the skit was condensed and given a twist to apply more directly to salesmen.

Introduced into the sketch was a G-man, called on the scene by the Queen of Hearts when the tarts were discovered missing. The G-man recovered the missing pastries, but in his search discovered a basket-full of heads, which the Queen of Hearts quite brazenly admitted having chopped off. It seems they had belonged to salesmen who were not spreading the story of All-Electric Wonderland with sufficient enthusiasm, and thus failing in their duty to women of America.

The G-man demurred a bit, but was finally convinced that every salesman who was not doing his bit to release women from the slavery of outmoded kitchen equipment deserved to be punished. The Queen then asked some questions of a number of the salesmen in the audience. Exceptionally good answers earned a tart as reward, very poor answers put the salesmen in danger of beheading—but later, as the Queen of Hearts didn't want blood on the floor right then.

This by-play was combined with the visit of Alice to "Electric Wonderland," where the Royal Home Economist prepared a dinner of broiled steak, hot biscuits, a vege-

table combination, and steamed rice, in 25 minutes. Alice's Daddy, out looking for his runaway daughter, arrived just in time to see the steak being taken in sizzling perfection from the broiler, and forgot to spank her in his enthusiasm for electric cooking. He promised Alice that her mother would have an electric wonderland in her kitchen, too. The entire action took just 30 minutes.

Other plays have been used to interest club groups in the all-electric kitchen, and to introduce various campaigns. One outstanding success was the "Wedding of Freddie—alias Elec Refrigerator—and Daisy Range," which announced the combined range and refrigerator drive. Dramatizing sales messages pays out, the institute has found, provided they conform to the following "rule of three":

1. They must be brief.
2. They must have a personal meaning for the audience.
3. They must, above all, be natural.

For the public, dramatization serves to interpret what appliances mean in the actual routine of living. It provides an opportunity to voice objections, and to meet them, perhaps before they are really formulated in the prospect's mind.

For the salesmen, a dramatized skit is a break in a life that has been saturated with speeches. In addition to getting his attention, it also serves as a good medium by which to air complaints, and lay them low in the spirit of fun.

Skits presented at the institute are acted out by staff members. As a rule, characters are few, and speeches are kept purposely brief. Over-dramatic incidents are avoided, action is fast—and when the point has been made, the drama's over.

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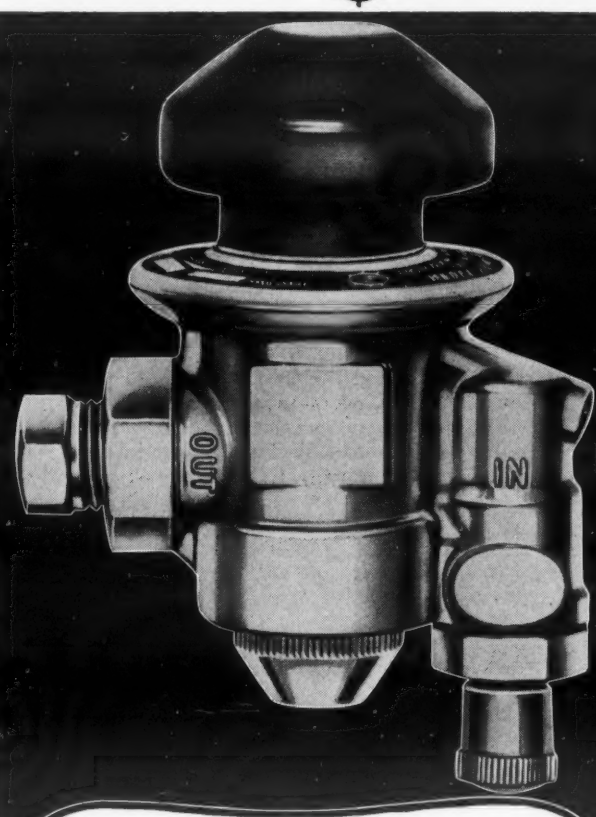
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